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ALBERTA TRANSPORTATION AND UTILITIES

A REPORT TO DETERMINE THE COSTS AND BENEFITS OF THE DEPARTMENT'S TRUCK HAUL CONTRACT CONDITIONS AND POLICY ALTERNATIVES

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EXECUTIVE SUMMARY

This study was undertaken to determine the costs and benefits of Alberta Transportation and Utilities (AT&U) truck haul contract conditions, in order to develop policy options for dealing with concerns about the conditions.

The investigation included: a review of the industry in Alberta and elsewhere in Canada, a comprehensive survey of 40% of the truckers in the industry, development of a financial impact model and development and assessment of four policy options.

The major findings of the study include a profile of the industry, determination of the costs and benefits of the three conditions and the impact of the various policy options on the continued viability of the industry.

THE COMPOSITION AND STRUCTURE OF THE GRAVEL HAUL INDUSTRY

The Alberta gravel haul industry in 1988 was valued at $159 million, of which $55 million or 35% was spent by AT&U. Sixty-five million dollars stemmed from private contracts, $31 million from municipalities and $8 million from other provincial government departments. Eighty-four percent of truckers in the industry worked on AT&U contracts in 1987 and/or 1988 (85% of small independents, 77% of large operators), and most worked for other customers as well. AT&U operators are found throughout the province but are more likely than average to be located in northern Alberta and less likely to be in the metropolitan areas (Edmonton/Calgary).

Gravel haul revenues made up 28% of the average gravel trucker's total revenues, varying from far higher dependence among small operators earning below $100,000 (66%), to 22% among companies with total revenues in excess of $500,000. Thus smaller companies are more dependent on gravel haul revenues than larger ones whose income comes from more diverse sources. Larger companies are also more likely to view themselves as being in the construction rather than the transportation business and as being contractors rather than haulers. Revenues from AT&U gravel haul projects make up approximately 10% of the average gravel trucker's total income and this is true for both small independents and larger operators.

The industry is comprised of approximately 1,330 active gravel haulers, of which 84% are classified as small independents since they own between one and three dump trucks. Small independents generally have one or two employees (80%), have total revenues from all sources below $150,000 (85%) and own one truck (67%).

Approximately 3,150 dump trucks are owned by gravel haulers, 46% of which are tandem axle dump trucks, 29% tandem combinations, 17% tractor-trailer units, 5% belly dump and 2% single axle dump trucks. Half of these trucks are owned by small independents, with the overall mix of units being similar amongst small independents and larger operators. However, small independents enjoy only 39% of all gravel haul revenues in the industry.

COSTS AND BENEFITS OF THE MINIMUM HAUL RATE, THE LOCAL TRUCK CLAUSE AND THE THREE TRUCK CLAUSE

The three AT&U gravel haul contract conditions have both positive and negative impacts on AT&U and the industry.

These include a cost of up to $22.3 million for AT&U (assuming a market rate up to 40% below the minimum haul rate). AT&U also shoulders administration costs, negative publicity about circumvention of the conditions and purchasing practice inconsistencies within the Department. The benefit is access to almost the entire gravel haul industry for Departmental road building projects.

For the industry as a whole, the minimum haul rate results in an increase in revenues of up to $22.3 million, and significant profits of up to $10.4 million.

However, the financial benefits are not equally spread, with the very largest companies taking a disproportionately high share of both additional revenues and profits. Another cost to the industry is the inequity created where truckers circumvent the conditions and this, in turn, raises further problems.

Within the industry, the conditions do not always have equal impacts on all sectors. The survival of the very largest companies is linked to the minimum haul rate; yet the other conditions prevent large companies from taking a greater share of AT&U work since these conditions protect the small independent and/or the local trucker. There are also differences in the benefits the conditions have in different regions of the province.

POLICY OPTIONS FOR AT&U

The policy options which face the Department include everything from a "do nothing" option (i.e., maintain the status quo), to elimination of all three conditions. Between these extremes, the alternatives encompass elimination of one or two of the three conditions in various combinations, and maintaining one or more of the conditions but changing the quantity associated with it (for example, decreasing or increasing the number of trucks that can be used on an AT&U contract).

The first option, maintaining the status quo, will simply prolong both the costs and benefits to AT&U and the industry, as described above. However, administration and negative publicity costs for AT&U could be mitigated by use of an impartial third party to resolve disputes over contract condition infringements and by implementing an improved communication program between the Department and industry operators.

The alternatives of eliminating one or two conditions or changing conditions appear likely to create more problems than they solve. The industry would be thrown into a more competitive mode but, since restrictions on competition would remain, the potential for greater circumvention is enhanced, with its accompanying potential for negative publicity. These alternatives would also put pressure on revenues and profits and threaten the continued financial viability of at least one industry sector.

Elimination of all three conditions would provide a saving to the Department of up to $22.3 million, provide consistency with other Departmental purchasing practices and eliminate administration costs. While it will also eliminate negative publicity relating to circumvention, significant protests can be expected from across the industry.

Removal of all restrictions will provide the opportunity for companies to expand and will remove the disbenefits of unfair competition through circumvention of contract conditions. All operators will compete under the same rules, those of the free market. However, there will also be a reduction in revenues from all sources of less than 5%, a reduction in profits of up to 11%, up to 450 fewer trucks (about half each from the small independents and larger operator sectors), and 200 fewer operators (of which approximately 110 would be one-truck owners, 60 other small independents and 30 larger operators) as well as increased competition throughout the industry. There is also a risk that the very large and marginal contractors in the industry will fail.

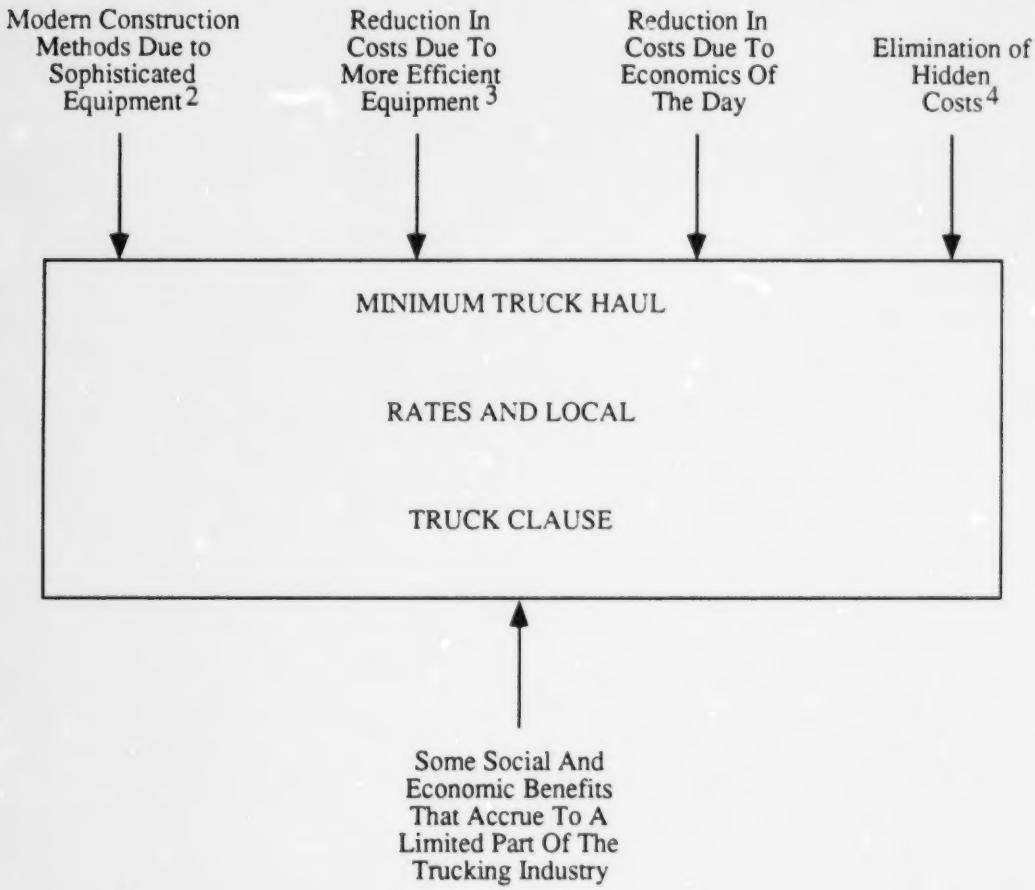
CONCLUSIONS

The question of what constitutes viability is pivotal to the recommendation of this study. In this report it has been defined as a 'gravel haul industry of sufficient size and appropriate mix to meet the needs of its road construction customers'. With this definition, the industry is expected to remain viable under all policy options, regardless of the disruptions and potential structural alterations which could occur under the change and elimination options.

AT&U stands to gain more from eliminating all conditions than from implementing the other options since they do not correct the disbenefits to either the Department or the industry. Elimination of all three conditions is the recommended option. However, AT&U can expect to face significant industry protest, given the generally positive opinions of the conditions and likely negative reactions to their removal.

Three alternative time frames for implementing this policy are identified for consideration: elimination of all conditions now, effectively over the next two years as new contracts are initiated; phasing out of the conditions either by reducing the stringency of each condition gradually over time, or by increasing the number of end product specification and contractor supply projects; and elimination of all conditions at a future time when more favorable economic circumstances reduce industry reliance on the conditions and the potential for disruption.

A SUMMARY OF PERCEIVED PRESSURES ON THE TRUCK HAULING CONTRACTUAL CONDITIONS [1]



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[1] The truck haul component of a typical contract is 20%.

[2] Combination units comprise about 50% of the fleet and carry about 70% of materials used.

[3] Current minimum rates are about 30% over that needed by use of combination units.

[4] Includes contract monitoring, dealing with complaints and bad publicity.

Source: Coopers & Lybrand Consulting Group based on information from Alberta Transportation and Utilities

1. INTRODUCTION

THE ISSUE AND CONTEXT FOR THIS STUDY

TRUCK HAUL CONTRACT CONDITIONS

Alberta Transportation & Utilities (AT&U) has had minimum truck haul rates since the early 1930's. An original purpose of these rates was to ensure that farmers could access an alternative income source on a seasonal basis. Also, in an attempt to ensure that truckers could work on projects in their area, local truck clauses have been used over the years. Both systems have had positive benefits for a specific part of the trucking industry.

Since these early days, many things have changed, including the introduction of more sophisticated equipment and the economics of the day. Today, on straight flat hauls (a) combination units are more efficient than the original single axle and the more recent tandems and, (b) due to fewer projects and tighter existing economic conditions (than the late 70's), unconstrained, free-market haul rates have been reduced. However, even though these changes have occurred, the policies of AT&U, regarding minimum truck rates and the local truck clause, have remained intact.

The Department is now facing a situation whereby certain factions of the industry are demanding that these policies remain, whereas others feel they should be removed entirely (and of course, there are options between these extremes). The pressures that the Department faces are graphically summarized on Exhibit 1, on the page opposite. As depicted in this exhibit, issues of costs, modernization, fairness and economies are exerting pressure for removal of the policies, whereas benefits to specific truckers (a part of the trucking industry), is exerting pressure for retention of the system in place.

Given these circumstances the Department perceived the need to investigate the costs and benefits of the truck haul contract conditions.

THE AUDITOR GENERAL'S REPORT

On January 5, 1989, Mr. D.D. Salmon, the Provincial Auditor General, wrote to the Department regarding his examination of the truck haul payment systems. The Auditor General made the following statements.

- It is unclear, however, and the Department has not formally stated, how these conditions (the truck haul contract conditions) are expected to promote a viable trucking industry for the Province.

- In summary, it is unclear how the contractual conditions imposed on contractors are expected to contribute to the Department's apparent objective. The Department also does not have information readily available, which it can use to determine the impact of its existing procedures.

- It is recommended that the Department define more precisely its objectives relative to the Province's trucking industry. It should also analyze the costs and benefits of its existing truck haul contract conditions and compare them with the anticipated costs and benefits of alternative strategies.

Clearly, the Auditor General also felt that there was a need to study the current situation.

RECENT MEDIA COVERAGE AND AN R.C.M.P. INVESTIGATION OF KICKBACKS

The Department's current truck haul contract conditions have received a good deal of recent media coverage as well as an R.C.M.P. investigation resulting from allegations of kickbacks.

The truck haul contract conditions are very difficult and time consuming to administer; when complaints are made, investigations resulting in corrective action are almost impossible. The system is such that loopholes can be found; the current economic conditions in Alberta are alleged to encourage people to find and exploit these loopholes.

The allegations and media coverage are another reason for this study.

OBJECTIVES OF THE STUDY

The key objective of this study is to determine the costs and benefits of the Department's truck haul contract conditions in order to develop policy options for dealing with current pressures.

Four areas require investigation in order to meet this objective:

- Composition and economic viability of the gravel trucking industry in Alberta;
  - make up of the "small independent trucking industry",
  - make up of the "gravel trucking industry".
- Market analysis for the component parts of the gravel trucking industry;
  - impact of the "small independent truckers",
  - customers served by the various component sectors of the gravel trucking industry.
- Impact of current government policy on the gravel trucking industry;
  - Is the rate and hiring protection required to maintain a viable industry?
  - Do current departmental rates and hiring practices provide a uniform benefit/disbenefit to either the small independent trucking industry or to the provincial gravel trucking industry as a whole?
  - What are the overall costs/benefits to the economy of Alberta resulting from the current policy?
    - last five years
    - present
    - small independent truckers
    - whole gravel trucking industry
- Alternative policy or policies which would better ensure viability and stability of the industry.

THE STUDY PROGRAM

Four phases were involved in carrying out this study:

- An industry review.
- A survey of Alberta gravel truckers.
- Development of an economic and financial model of the industry.
- Development and testing of alternative policy options.

INDUSTRY REVIEW

The review of the industry included an assessment of the issue through interviews with the Alberta Road Builders and Heavy Construction Association, the Alberta Gravel Truckers Association and Department personnel, as well a review of Department files.

Alberta's truck haul contract conditions, and experience in administering the contracts, was then contrasted with conditions and experiences in other provinces. British Columbia, Saskatchewan, Manitoba and Ontario each provided information on their situation in response to a written questionnaire.

Statistics on the industry (in reality, groups which encompass and/or are part of the gravel trucking industry) were accessed through published and unpublished data available from Statistics Canada. This permitted comparison of trends in the Alberta industry with that in other key provinces and the country as a whole, using a common definitional framework.

TRUCKER SURVEY

A survey of over 500 Alberta truckers who had hauled gravel for road building purposes in the past two years was conducted.

Results of the survey provided:

- An estimate of the number of operators in the industry, including "small independents".
- A profile of the industry in terms of location, main business activities, types of goods hauled, number and types of trucks used to haul gravel, number of contractors versus haulers, number of employees and association membership.
- Customers served by the industry and the seasonality of gravel haulage.
- Gross revenues and expenses in the industry; contribution of gravel haulage and of different customer groups to these revenues; perception of importance of gravel haulage and AT&U to the business.
- Attitudes to AT&U as a customer; awareness of and attitudes to AT&U contractual conditions; anticipated effects of and reactions to the elimination of these contractual conditions.

IMPACT ANALYSIS MODEL

A computerized economic and financial model was developed to allow for the assessment of various options regarding the Department's contract conditions. The model used the results of the survey of Alberta truckers to define a base case scenario that describes the costs and benefits of the current truck haul contract conditions. This base case was used to gauge impacts on the industry as a result of changes to the conditions.

POLICY OPTIONS

Various options were developed regarding changes to the current truck haul contract conditions. The computerized model as well as judgement was used to assess the impact that these options may have on the trucking industry. In this way it was possible to (a) determine the objectives that the current conditions were in fact realizing, and (b) assess the degree of impact that changes to the conditions may create on truckers and the industry in total.

Eight scenarios were assessed:

- adjustments to the minimum haul rate as follows: +40%, +30%, +20%, +10%, -10%, -20%, -30%, -40%. These scenarios effectively measured the impact of changes to the minimum haul rate by (a) increasing it, and (b) decreasing it. The latter adjustments were seen as reflecting market conditions which are reported by AT&U personnel as being up to 40% less than the minimum haul rate.

For each scenario, impacts were assessed as follows:

- by size of trucking company (i.e., number of trucks used for gravel hauling and employees),
- by revenue structure,
- by location in the province, and
- by profitability.

Exhibit 2

INDUSTRY ASSOCIATION PERCEPTIONS OF IMPACTS OF EXISTING CONDITIONS

1. ADVANTAGES OF THE CONDITIONS

MINIMUM HAUL RATE

- Helps the small independents survive.
- Controls the competitive environment for small independents.
- Affects the lack of bidding ability by small independents.
- Will maintain a small independent trucking component.
- Supports part-time independents.
- Sets a benchmark for the industry.

THREE TRUCK RULE

- Keeps small independents in place.
- Helps ensure AT&U can meet peaks of construction.
- Does not allow majors to undercut and drive out small independents.

LOCAL TRUCK CLAUSE

- Helps truckers work closer to home.

2. ADVANTAGES OF ELIMINATING THE CONDITIONS

MINIMUM HAUL RATE

- Encourages more knowledgeable bidders.
- Builds up truckers' managerial skills.

THREE TRUCK RULE AND LOCAL TRUCK CLAUSE

- Encourages the establishment of fleets/amalgamations.
- Encourages fleets which are more economical and can keep equipment in better repair/update equipment.

2. REVIEW OF THE INDUSTRY

ASSESSMENT OF AT&U TRUCK HAUL CONTRACT CONDITIONS

ASSOCIATION INTERVIEWS

Two personal interviews were conducted; one with the Alberta Gravel Truckers Association (AGTA) and one with the Alberta Road Builders & Heavy Construction Association (ARA). The interviews had the objective of identifying opinions, issues, perceptions and contextual information regarding the gravel truck industry in Alberta and the perceived impact of the Department's gravel truck haul contract conditions. The following documents the key findings from these interviews.

REPRESENTATIVENESS

At the outset it must be recognized that neither of the associations interviewed represented all truckers in the province. The AGTA, which deals exclusively with gravel truckers, claims a membership of about 400. The ARA represents contractors. Both associations communicate regularly with their membership and reflect the views and opinions they hear.

CONSISTENCY OF OPINION

Based on the interviews it is clear that there is no one unanimous opinion regarding the Department's truck haul conditions. Whereas some members feel that the conditions are essential, others feel they may be harmful to the growth of the industry. Since there is no fully endorsed 'Association position' regarding the conditions, the associations have taken a 'do not change' position.

IMPACT OF THE EXISTING CLAUSES

A chart that summarizes the impact of the truck haul conditions, as seen by the associations' representatives, is shown in Exhibit 2. Exhibit 2 presents information on both the (a) advantages of the clauses, and (b) advantages of eliminating the clauses. In summary:

- the key advantage of keeping the clauses is the protection and therefore maintenance of the small truckers industry; in this regard, the three truck rule is perceived to be the most critical, and
- the key advantage of removing the conditions is to encourage a stronger trucking industry.

END PRODUCT SPECIFICATIONS

Interviewees felt that there is a growing trend to end product specifications for road construction and maintenance. Since end product specification contracts are not subject to the truck haul contract conditions, the need and or impact of the truck haul contract conditions will probably decrease in importance.

DOUBLE AXLE TRUCKS

Interviewees felt that double axle trucks were an important part of the gravel trucking industry. They are the preferred vehicle for many instances including steep slope road construction, construction in areas that require access by county roads with weight restrictions, and short haul requirements. Double axle trucks are seen as an essential part of a well balanced and efficient gravel trucking industry.

THE DEPARTMENT'S MINIMUM HAUL RATE IS VIEWED AS A STANDARD

It was noted by both interviewees that the Department's minimum haul rate tended to act as a benchmark, or guideline for others who require gravel hauling, including other levels of government. A review of some correspondence that was on file with the AGTA tended to substantiate this view.

CONCLUSION

In conclusion, it is evident that industry does not have a unanimous view regarding the Department's truck haul contract conditions. Benefits and disbenefits are seen in the existing approach used by the Department. The most critical clause in terms of maintaining the small independent component of the industry seems to be the three truck clause. As end product specification contracts increase, the value of all clauses decreases.

REVIEW OF AT&U TRUCK HAUL CONTRACT CONDITIONS

The following review was prepared from briefing material provided by AT&U and from information obtained during interviews with various members of staff prior to undertaking the survey of truckers.

BACKGROUND

Alberta has had minimum truck haul rates since the early 1930's. The original reasons were to ensure that (a) "seasonally employed" farmers would have access to an alternative source of income, and (b) an adequate supply of vehicles for road construction was available in any one particular region.

There has been a variety of "local truck clauses" in place over the years. The current clause is similar to the original also established in the early 1930's. Its purpose is to ensure that a percentage of local independent truckers are hired for Departmental contracts issued in their area.

MINIMUM HAUL RATE

The minimum haul rates apply to Departmental direct hire work (i.e., the Winter Works Program) and for sub-contract work to contractors. These rates are reviewed on an annual basis and approved by the Deputy Minister. The minimum haul rates were originally based on single axle units, primarily on a "production haul rate" (tonne per kilometer basis). These units were often owned by farmers and truck haul served as an additional source of income.

The 1960's and early 70's saw the introduction and widespread use of a tandem axle (10 cubic yard) unit, upon which subsequent rates were based (as opposed to the single axle vehicle). This type of vehicle was not typically used as a farm vehicle, but owned by individuals or companies primarily in the trucking business. The 1970's and 80's have seen the introduction of tractor/trailer and truck/pup combinations to the gravel haul industry. It is believed that even though this type of vehicle accounts for 50% of the number of units used to haul gravel, they haul over 70% of all the aggregate contracted out. Still, the minimum rate is based on tandem axle units, which, Department representatives perceive as being too high for the larger units, since the larger units are as much as 30% more efficient than a tandem axle.

Departmental reports indicate that the minimum truck haul rate causes a number of effects on the gravel haul industry. Some of these effects are believed to be as follows:

- Increases construction costs.
- Creates bidding inequities.
- Favors the small independent truckers.
- Maintains a rate structure on government contracts which improves truckers income when work is scarce and industry haul rates are low.

- Discourages construction efficiencies/ productivity since the rates encourage the use of less efficient units.

- Maintains an artificial level of truck numbers in the industry compared to the supply-demand implications of the market place.

- Creates incompatibility with the increasing number of projects that allow contracts to supply aggregate (approximately 15% of all contracts issued).

- Causes difficulties in administering these contracts resulting in increased administrative costs and bad publicity.

Current minimum haul rates for 1989/90 are as follows:

Cubic Meter Kilometer Basis (used when no weigh-scale is available)

Consists of a basic loading factor of $1.19 per cubic meter, plus a haul rate of $.182 per cubic meter kilometer.

Operating Hourly Rate Basis (used when there is a higher than average amount of waiting time involved between loads).

The rate is as follows:

- Single Axle Dump Truck - $29.70/hour
- Tandem Axle, 7.65 cubic meter - $36.85/hour

For trucks with pup trailers or tractor/trailer units, $2.20 is added for each additional cubic meter over 7.65 cubic meters.

Tonne Kilometer Basis (used in the majority of contracts)

Consists of a basic loading factor of $.73 per tonne, plus a haul rate of $.112 per tonne kilometer.

Each year the Department reviews the minimum haul rates. The factors considered when determining the rates are:

- The purchase price of units;
- Fuel prices;
- Depreciation and life span of units;
- Wages and benefits;
- Interest rates;
- Repair costs;
- Insurance, Licenses;
- Tires; and
- Living allowances.

A number of factors have indicated to the Department that the minimum haul rates are higher than current market rates. These factors include:

- a comparison of contracts based on the minimum haul rates with those issued under contractor supply arrangements and with similar county projects;

- a review of operational costs by the Department of the various classes of vehicles currently used in the gravel haul industry; and

- a comparison of the current rates to the operational costs of the Department's own fleet of similar vehicles.

LOCAL TRUCK CLAUSE

A variety of local truck clauses have been in place over the years. The current clause requires a contractor to:

- use "small independent" truckers on most hauls. "Small independent" is defined as owning three trucks or less. The Department believes that this encompasses 60 - 65% of the gravel hauling industry.

- hire at least 50% of the independent trucks from within the local region, as defined by the contract. The District Engineer is responsible for determining the number of trucks required and the base radius for the contract.

The "three truck rule" and "local clause" creates a number of effects on the gravel haul industry. AT&U believes these include:

- An imbalance between the demand and availability of units.

- A limitation on Geographical Work Freedom since the local clause gives the advantage to trucks in the immediate area, but a disadvantage to all other truckers. This is especially true when there have been no contracts issued in a specific area during the year.

- A disincentive to productivity and efficiency since the contractor cannot always utilize the most compatible and optimal haul units.

- The potential for abuse by truckers through changing registered names and addresses to compete unfairly with those who follow the rules.

- Increased administrative costs.

VALUE OF HAUL ITEMS WITHIN TENDERED CONTRACTS

All haul contracts are tendered and are usually part of a larger contract for all road construction, or maintenance services. As a consequence, there are cases where the contractor will bid under the minimum haul rate even though he is obligated to pay that rate to the truckers. Below is an analysis of the dollar value of haul costs for tendered contracts for the past three years.

1988

Haul Items (Basic Load Factor and Haul) -	$39,239,322	(1)
Amount Based on Minimum Haul Rates -	39,654,727	
Difference	$ 415,405	(1.6%)

(1) Equals 19.4% of total contracts tendered ($196,598,732)

1987

Haul Items (Basic Load Factor and Haul) -	$35,550,540	(2)
Amount Based on Minimum Haul Rates -	36,539,590	
Difference	$ 989,050	(2.78%)

(2) Equals 20.61% of total contracts tendered ($172,532,462)

1986

Haul Items (Basic Load Factor and Haul) -	$32,007,471	(3)
Amount Based on Minimum Haul Rates -	32,204,117	
Difference	$ 196,646	(.61%)

(3) Equals 17.38% of total contracts tendered ($184,142,045)

NOTE: The above figures do not include contracts where the contractor supplies aggregate as well. These contracts account for approximately 15% of all gravel haul contracts issued in 1988.

The above results indicate that over the past three years contractors have bid a total of $1,601,000 under the minimum haul rate in order to obtain road construction or maintenance contracts.

While it is possible that the lower bids reflect non-adherence to the minimum haul rate to be paid to truckers, several other reasons can be postulated as well, including: absorption of some of the hauling costs elsewhere in the contract; gambling on the part of the contractor that costly blend sand will not be required; use by contractors of some of their own trucks for which the minimum haul rate may not be paid.

CONTRACT CONDITIONS IN OTHER PROVINCES

COMPARISON OF POLICIES

The provincial Highways/Transportation Departments in British Columbia, Saskatchewan, Manitoba and Ontario were asked to provide some information on their

Exhibit 3

PROVINCIAL TRUCK HAUL CONTRACT POLICIES

	MINIMUM HAUL RATE	THREE TRUCK RULE	LOCAL TRUCK CLAUSE	OTHER CONDITIONS/POLICIES
ALBERTA	All vehicles. Rates unchanged since 1981	No more than three trucks may be hired from any one operator on one contract.	A minimum of 50 percent of the total number of trucks on the project are to be independently owned. Haulage to be equally distributed by nature of haul, schedules, distances and weight/volume of material.	May not use brokers or third parties to hire and pay truckers. No administrative charges, fees or other considerations except board, lodging and fuel charges in remote areas at an approved cost. Use of these supplies may not be made compulsory.
ONTARIO	Applies only to single and tandem axle trucks. Rates are increased annually (+23 percent since 1984).	None.	None.	Minimum wage rates are applied. No more than 50 percent by value of tendered work may be subcontracted. In winter, prime contractor must be registered owner of 50 percent of all vehicles (to assist on-site control).
MANITOBA	All vehicles. Last updated in 1985.	None.	None.	These rates are to be paid clear to the truck owners. Administrative, accounting and the like costs are not to be charged to the truck owner.
SASKATCHEWAN	All vehicles. 1989 rate is 10 percent lower than previously. Separate rates for bituminous mix and other materials.	None.	None.	Minimum of 40 percent of contract haul (by distance-weight or distance-volume) must be provided to independent truckers unless unavailable after following specified hiring procedures. Saskatchewan Trucking Association has right to investigate complaints of non-compliance with rate and to take them to arbitration. Brokering not permitted. Set-offs allowed from minimum haul rate include trailer rental, fuel, food, accommodation and other goods and services, in accordance with Departmental guidelines; trucker under no obligation to purchase.
BRITISH COLUMBIA	None.	On Day Labour Projects local owners may register one truck on a primary list, one on a secondary list and any others on an open list. Hiring is based on a priority formula within list, to a maximum of 600 hours per truck and is then rotated to the next list.	Local truckers (from the nearest population base) must be used on contract haul unless all tandem or combination units are employed or cannot meet the prime contractor's union requirements.	Slow/inefficient trucks may be laid off for cause.

current and historical truck haul contract policies (questionnaire and covering letter are shown in Appendix 1) for comparison with Alberta's position. The responses show that:

- All provinces except British Columbia have some form of minimum haul rate.

- Only British Columbia has a local truck clause.

- British Columbia also manages some Day Labor projects using a local owner-operator hiring system which limits the number of trucks an operator can supply as well. No other province has a three truck rule or equivalent.

- In the past, Ontario issued Road Construction Material Class R Licenses within geographical zones, based on identified needs, but this has been discontinued as a result of deregulation of the trucking industry over the past ten years.

- Other policies in place include Saskatchewan's requirement that a minimum of 40% of haulage (by tonne kilometer) be sub-contracted to independents. In contrast, Ontario requires that no more than 50% of tendered work (by value) be sub-contracted, in order to assure themselves of contractor responsibility for the project. In addition, for winter hauls in Ontario, the prime contractor is required to be the registered owner of at least 50% of the vehicles used, to assist on-site control.

- Minimum wage rates are also stipulated in Ontario.

Exhibit 3 provides a synopsis of the policies in place in each of provinces. These various policies were implemented for one of three reasons:

Economic

- To encourage local economic activity (British Columbia local truck clause).

- To provide a provincial standard. Rate is routinely applied to municipal road contracts (Ontario minimum haul rate).

Fairness, Equity and Protection

- To fairly and equitably distribute available work to equipment owners within the province (British Columbia hired equipment policy).
- To promote fairness and equity for independent truckers in the hauling of road building materials (Saskatchewan, all clauses).

- To protect the small independent owner-operator, especially in rural areas when work is available (Ontario minimum haul rate for single and tandem axle trucks).

- To provide a distribution of work among all segments of Alberta's gravel truckers (Alberta, all clauses).

Industry Stability

- To maintain a viable (stable) trucking industry to support the road building industry in Saskatchewan (Saskatchewan, all clauses).

- To assist in maintaining a viable trucking industry (Alberta, local and three truck clauses).

- . . . in general it appears that the decision to minimize what the Contractor could pay the trucker has increased the number of private trucks available and stabilized the industry (Manitoba, minimum haul rate).

- . . . were originally established to ensure a viable, healthy, truck haulage industry throughout Ontario. By protecting the independent owner/operators, the goal was to ensure a continuous level of competition in the market place (Ontario, minimum haul rates when applied to all vehicles).

COMPARISON OF MINIMUM HAUL RATES (IN DOLLARS)

Exhibit 4

		BASIS OF RATE							COMPARISON OF PER TONNE PRODUCTION RATES FOR HAULS OF[1]:		
		TONNE KILOMETER		CUBIC METER KILOMETER		HOURLY					
	DISTANCE	Load Factor (per tonne)	Haul Rate (per tonne km)	Load Factor (per cu. m.)	Haul Rate (per cu. m. km)	Single Axle	Tandem Axle	Combination Unit	20.5 km	13 km	29 km
ALBERTA	N/A	0.73	0.112	1.90	0.182	29.70	36.85	36.85 plus 2.20 per cu. m. over 7.65 cu. m.	3.026	2.186	3.978
ONTARIO[2]	First 3 km or portion thereof	0.980	N/A	N/A	N/A	35.00	43.50	N/A	3.018	2.230	3.580
	For portion 3 - 16 km		0.125								
	For portion 16 - 32 km		0.075								
	For portion above 32 km		0.055								
MANITOBA	From 0 - 20 km	0.460	0.090	0.820	0.160	N/A	N/A	N/A	2.300	1.630	2.980
	For portion 20 - 40 km		0.080		0.142						
	For portion above 40 km		0.065		0.116						
SASKATCHEWAN											
Bituminous Mix	N/A	0.528	0.112	N/A	N/A	N/A	N/A	N/A	2.824	1.984	3.776
All Other Materials	0 - 8 km	0.460	0.112	1.7 times the tonne kilometer basis		Not Available			2.347	1.762	2.987
	8.1 - 16 km	0.306	0.112								
	16.1 - 24 km	0.153	0.107								
	24.1+ km	0	0.103								
BRITISH COLUMBIA	NO MINIMUM HAUL RATES IN EFFECT										

1 Average contract haul in Alberta is 20.5 km; in Ontario, 13 km. Average stockpiling haul in Alberta is 29 km.
2 Minimum haul rates in Ontario apply only to single and tandem axle dump trucks.
N/A Not applicable.

It is interesting that the raison d'etre for the various policies is generally either equity or industry stability, regardless of the mechanism (i.e., the form of the policy) for achieving the objective.

Ontario's experience in deregulating the industry (i.e., removal of Class R zone boundaries, elimination of minimum haul rates on tractor-trailer units, acceptance of truck brokers as part of the system) is instructive.

They report having recently received demands from independent truckers in the urban areas to implement minimum haul rates for all truck units (i.e., including tractor-trailer and tri-axle units). Ontario truckers have also expressed concern about the lack of specifications regarding the role of truck brokers. However, as the Ministry is responsible for only 15% of haulage contracts, it is felt unlikely that they will implement more stringent rules at this time.

COMPLIANCE

The issue of non-compliance has recently been dealt with in Saskatchewan by appointing the Saskatchewan Trucking Association as the investigative body for complaints and as the representative of the trucker in the event that a complaint is taken to arbitration. Unlike the previous system of Departmental reaction to trucker complaints, this system is considered to be legally enforceable.

Manitoba relies on the truckers themselves to police application of the minimum haul rate. Alberta - as did Saskatchewan prior to the recent agreement (January, 1989) with the Saskatchewan Trucking Association - enforces contract conditions through reaction to complaints.

MINIMUM HAUL RATES

The minimum haul rates used by the different provinces are detailed in Exhibit 4. Rate calculations in each province are based on an average tandem truck. Since the formulae vary from province to province, production rates for three typical haul distances have been calculated for purposes of comparison.

For the average contract haul in Alberta of 20.5 km, Alberta and Ontario truckers would earn approximately the same ($3.02 per tonne), while Saskatchewan and Manitoba truckers would earn approximately 25% less ($2.30 - $2.35 per tonne). Note that the Saskatchewan rate quoted here is based on "other" materials, since these are expected to be used on the majority of hauls.

For the average contract haul in Ontario (13 km), Alberta truckers would earn almost as much as Ontario truckers ($2.19 versus $2.23 per tonne), with Saskatchewan and Manitoba truckers again earning 20% - 25% less at $1.76 and $1.63 respectively.

Production rates for an average stockpile haul of 29 km in Alberta vary even more significantly. Alberta's rate of $3.98 exceeds Ontario's rate of $3.58 - a 10% variance; Manitoba and Saskatchewan truckers would earn $2.98 - $2.99, 25% less than Alberta operators.

Since Ontario's rates are effective for only a very small part of the industry (primarily in rural areas where single axle/tandems are in use), and considering the higher cost of living in that province too, Alberta does appear to have a significantly higher rate than other effective provincial rates.

The Ontario Ministry of Transportation estimates that $40 million of the $315 million spent on its own 1988 provincial highway construction program was for truck haulage. At 13% of total contract costs, this is 35% below the 19% figure reported earlier for Alberta.

CONCLUSION

Overall AT&U is more protective of the independents in the gravel haul industry than are the other provinces studied.

AT&U makes more demands of road contractors on behalf of this industry segment than any other province and has a significantly higher effective minimum haul rate.

The reasons for this greater level of protection are not clear since the rationales put forward by other provinces for their policies are no different to those enunciated by Alberta.

Saskatchewan's new approach to compliance enforcement deserves further study once sufficient time has elapsed to allow meaningful evaluation to be undertaken.

ALBERTA'S INDUSTRY COMPARED TO OTHER PROVINCES

Statistics on the gravel haul industry per se are not available anywhere in Canada. In order to undertake interprovincial comparisons, published and unpublished data were obtained from Statistics Canada for segments of the trucking industry that encompass gravel haulage.

It should be noted that:

- neither of the sources covers all of the gravel trucking industry (for example, Ontario currently issues almost 5,900 Class R licenses to operators - not trucks - hauling road construction materials in the province. Statistics Canada identified 362 Ontario dump truck operators with revenues from freight operations over $100,000 in 1987. If dump operators follow the total truck transport industry revenue distribution (i.e., that ±37% earn in excess of $100,000), then the total Ontario dump truck industry would be approximately 1,000 carriers. This is, of course, significantly less than the 5,900, or thereabouts, indicated by Class R licenses);

- different sources of information are based on different segments of the trucking industry; and

- the different sources overlap.

Thus the numbers in and of themselves, (e.g., number of carriers, gross revenues, number of employees etc.), must be used with caution. The real benefit of the information is in providing a consistent data base across Canada, permitting comparison of trends over time between provinces and between Alberta and Canada as a whole. The assumption is made that trends in the Alberta gravel trucking industry have followed those in the specific segment covered in the studies.

MOTOR CARRIERS OF FREIGHT AND HOUSEHOLD GOODS MOVERS SURVEY

Special tabulations of the Motor Carriers of Freight and Household Goods Movers Survey were undertaken for this study by Statistics Canada.

The Motor Carriers Survey deals with Canadian domiciled for-hire trucking establishments (SIC Code 456 - Businesses primarily engaged in the provision of all types of trucking, transfer and related services) with revenues of $100,000 and over from freight operations. It excludes truck operators not classified in SIC Code 456, (e.g., those in the construction industry), and it excludes small independents. To narrow the focus closer to the gravel haul sector, the tabulations cover only carriers with revenues from dump operations.

Data on:

- change in the number of carriers transporting dump commodities,

- change in the number of employees,

- change in equipment owned, and

- change in operating revenues and expenses

are shown for 1980 (pre-recession), 1982 (start of recession), 1985 (strong growth year) and 1987 (most recent year for which data were available) in Appendix 1, Tables 1 to 4.

Even a cursory glance at the changes which have taken place in Alberta between 1982 and 1987, shows very clearly that the industry has suffered in comparison to any other province

examined (Ontario, Manitoba, Saskatchewan, British Columbia) and in comparison to Canada as a whole.

%Δ1987/82	*Canada*	*Alberta*
# Carriers	+30.4	-22.0
# Employees	+34.6	-17.5
Total Equipment	+42.7	- 5.5
Revenues	+85.7	-15.2

The Canadian industry has grown significantly both in number and size of carriers, while the Alberta industry has declined. Depending on the measure used, the Alberta industry comprised between 8% and 14% of the Canadian total in 1987, compared to its 15% to 24% share in 1982.

On average, Alberta companies are smaller than those in any other province studied, or in the country overall, as may be seen in the numbers below.

1987	*Canada*	*Alberta*
Average # Employees	7.1	5.2
Average Equipment Items	11.5	7.9
Average Revenue ($K)	$635	$340
Average Net ($K)	$42	$19

In 1987 Alberta's profitability levels of 5.5% were below the Canadian average of 6.6%, but above those of Manitoba and British Columbia. In comparison, Alberta's profitability level of 5.7% was well above the industry average of 4.3% in 1982.

In 1987 the Alberta industry was still suffering to a greater degree than the other provinces (Appendix 1, Table 5) as evidenced by the slippage of 21% of carriers with revenues over $100,000 in 1986 below this level in 1987, compared to a similar loss of revenue by only 12% in the country as a whole. In the same vein, the proportion of carriers with revenues of half a million or more (at 12%), was half that for Canada.

However, Tables 1 to 4 also show that some rationalization has taken place in Alberta. While there were fewer carriers in 1987 than in 1982, they were, on average, larger in terms of number of employees, amount of equipment owned and average gross revenues (not adjusted for inflation).

It is also likely that the Alberta industry is more efficient today than it was in 1982. The overall decline in number of equipment items masks real growth in ownership of combination units (road tractors +21%, semi-trailers +9%, full trailers +110%) and a significant decrease in single/tandem axle units (-47%) in this sector.

The mix of equipment owned by Alberta companies is not significantly different to other provinces, suggesting that they are no less efficient than elsewhere in Canada.

It would also appear that the industry follows general economic trends in the province, and particularly those in the non-residential construction sector. 1985, a strong growth year for Alberta, was also a strong year for the industry.

	1980	*1982*	*1985*	*1987*
Annual %Δ in Constant $				
GDP	+4.9	-4.0	+6.3	+4.7
Non-residential construction	+21.8	-9.6	+12.6	+1.7
Average/Carrier				
# Employees	6.9	5.0	6.1	5.2
Equipment Items	8.0	6.5	9.7	7.9
Revenues ($K)	422.6	312.5	412.8	339.7

SMALL BUSINESS PROFILES

Small Business Profiles for SIC 4564 covers a sample of incorporated and unincorporated business with sales between $10,000 and $2 million, which are primarily engaged in transporting, usually by dump truck, dry bulk materials such as cement, fill, sand and debris including snow.

As in the previous survey, businesses not primarily in the transportation industry are excluded, while there is an overlap of companies earning between $100,000 and $2 million between the two sources.

Average revenue and expense data for the three years 1984 to 1986 are shown in Appendix 1, Table 6. A comparison of Alberta's average sales with those of other provinces and Canada as a whole, again points to lower revenues in Alberta. However, this segment of the industry in Alberta appears, on average, to be at least as profitable as in the country as a whole, although the proportion of businesses reporting a profit is lower.

	Average Sales ($K)	*% Profit*	*% Businesses Reporting Profit*
Canada			
1984	103.1	10.5	89.0
1985	127.9	11.1	95.6
1986	136.9	10.0	79.9
Alberta			
1984	83.1	12.8	86.3
1985	111.9	14.6	92.8
1986	131.0	10.0	70.7

It should be noted that actual profitability may be very different from reported profitability since small operators (under $100,000 in sales) frequently do not report personnel expenses (see Appendix 1, Table 7). If the composition of the Alberta industry (by revenue-size) differs from that elsewhere in the country, then comparison of expense and profit figures above is an unreliable proposition. The data reported in the Small Business Profiles suggest this may be the case as the 1986 median income for Canada is $71,000 compared to Alberta at $60,000 (British Columbia, the only other province for which quartile data was reported, had a median of $69,000). If Alberta has a higher proportion of small operators, then, because of under-reporting of salaries and wages, lower expenses and higher profits may be shown.

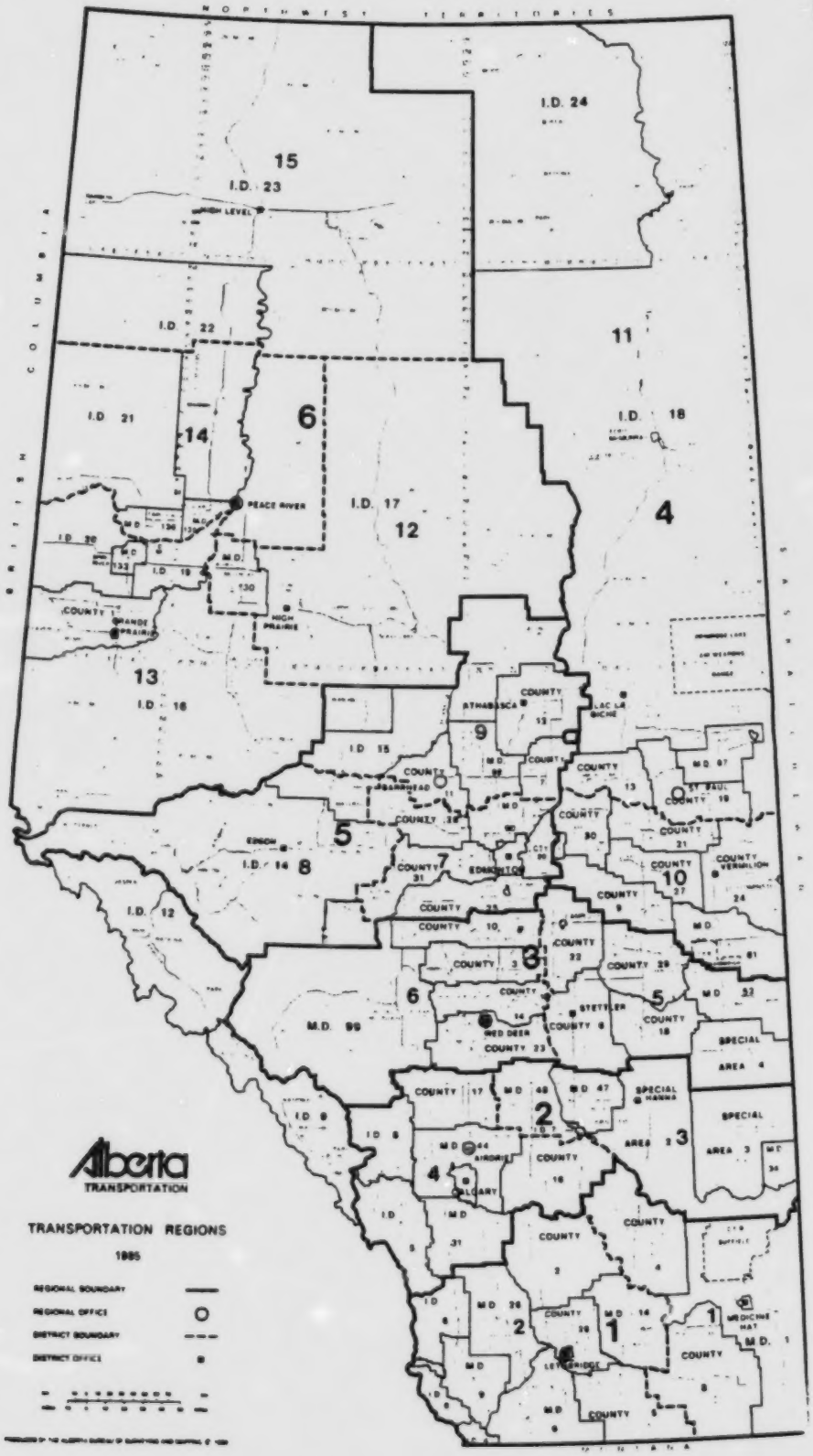
CONCLUSION

If one assumes that the information described above is true of the entire gravel haul industry in Alberta, then it may be concluded that over the period 1982 to 1987, there has been both a decline in and a rationalization of the industry.

In contrast to the rest of Canada, where significant growth was recorded, there were fewer total carriers, employees, items of equipment and lower gross total revenues in the Alberta industry in 1987 than in 1982. However, Alberta companies in business in 1987 were, on average, larger than in 1982 and were more likely to own the more efficient combination units. Alberta companies appeared to have a no less efficient mix of trucks than other provinces in 1987.

Nevertheless, in comparison with other provinces and the country as a whole, the average Alberta company is smaller in size as measured by number of employees, items of equipment owned, revenues and possibly profits.

Exhibit 5


NORTHWEST TERRITORIES
BRITISH COLUMBIA
SASKATCHEWAN
MONTANA
I.D. 24
15
I.D. 23
HIGH LEVEL
I.D. 22
11
I.D. 21
14
6
I.D. 18
PEACE RIVER
I.D. 17
12
4
I.D. 20
I.D. 19
M.D. 130
HIGH PRAIRIE
COUNTY 1
GRANDE PRAIRIE
13
I.D. 16
ATHABASCA
COUNTY 12
LAC LA BICHE
9
I.D. 15
BARRHEAD
COUNTY 13
ST. PAUL
COUNTY 19
COUNTY 30
COUNTY 21
5
EDSON
I.D. 14
8
COUNTY 31
7
EDMONTON
COUNTY 10
COUNTY VERMILION
I.D. 12
COUNTY 25
COUNTY 10
COUNTY 22
COUNTY 29
3
6
M.D. 99
STETTLER
COUNTY 6
COUNTY 18
RED DEER
COUNTY 23
SPECIAL AREA 4
COUNTY 17
M.D. 48
M.D. 47
SPECIAL HANNA
2
SPECIAL AREA 3
AREA 2
3
M.D. 44
AIRDRIE
COUNTY 16
4
CALGARY
COUNTY 2
COUNTY 4
M.D. 26
2
COUNTY 26
M.D. 14
1
MEDICINE HAT
M.D. 1
COUNTY 8
LETHBRIDGE
COUNTY 5
Alberta
TRANSPORTATION
TRANSPORTATION REGIONS
1985
REGIONAL BOUNDARY
REGIONAL OFFICE
DISTRICT BOUNDARY
DISTRICT OFFICE

3. THE SURVEY OF ALBERTA GRAVEL TRUCKERS

PURPOSE

In the absence of reliable information on the composition and economic viability of the Alberta gravel trucking industry, a survey of gravel truckers was needed to provide critical inputs for the study. These include revenue and expense data, the contribution to revenues from gravel haulage and from different customer groups within the industry.

The scope of the survey was further broadened to investigate some of the costs and benefits of the gravel haul contract clauses as perceived by AT&U and the industry associations and to identify industry attitudes to these clauses as well as likely reactions if the clauses were eliminated.

Specific questions asked in the survey are shown in the questionnaire located in Appendix 2.

SURVEY METHODOLOGY

SAMPLE FRAME

As no single comprehensive list of gravel truckers was available, the sample frame for this survey was defined as all registered owners of vehicles with the potential to haul gravel.

The list was compiled from Class 1 and Class 2 license records which met certain weight criteria. Known non-gravel truckers, out-of-provinces addresses, duplicate listings between Class 1 and 2, multiple listings for one owner and/or of an address or telephone number were deleted from the original list. In this way, the original listing of 7,242 names was reduced to 3,392 names, distributed as follows:

AT&U Region 1	261
AT&U Region 2 (excluding Calgary)	264
AT&U Region 3	468
AT&U Region 4	398
AT&U Region 5 (excluding Edmonton)	769
AT&U Region 6	595
Edmonton	374
Calgary	249
Large Contractors/Truckers	14
	3,392

Further detail on the sample frame is provided in Appendix 2. The location of AT&U Regions is displayed in Exhibit 5.

SAMPLE SIZE AND DISTRIBUTION

The regional distribution within the sample frame could not be assumed to be representative of the gravel haul industry as each group included an unknown proportion of companies not involved in gravel haulage.

Thus a disproportionate sampling approach was implemented, which would ensure that sufficient information would be gathered in each area of the province. This required the collapse of several AT&U regions.

In addition, as participation in AT&U projects was thought to be low among companies operating out of Edmonton and Calgary, a special metropolitan group was set up to verify this situation.

Finally, in order to ensure that major contractors and major truckers were included in the survey, they were identified as a special group.

The sample frame, number of interviews to be completed and actual number of interviews conducted, are shown on the next page:

	Sample Frame	*Quota for Completion*	*Actual Interviews*
AT&U -			
Region 1	261	32	36
Region 2	264	33	38
Region 3	468	60	62
Total Southern Alberta	**993**	**125**	**136**
AT&U -			
Region 5	769	125	119
Total North Central Alberta	**769**	**125**	**119**
AT&U -			
Region 4	398	50	54
Region 6	595	75	81
Total Northern Alberta	**993**	**125**	**135**
Edmonton (Region 5)	374	75	79
Calgary (Region 2)	249	50	49
Total Metro	**623**	**125**	**128**
Large Contractors	13	All	7*
Large Truckers	1	who qualify	0
Total Large	**14**		**7***
GRAND TOTAL	3,392	500+	518

*also included in regional totals

SAMPLE SELECTION AND FIELDWORK

A random sample within each of the eight sampling groups or strata (i.e., six AT&U regions, Edmonton and Calgary), was achieved by assigning a random digit to each record and then sorting by random digit within each group. This provided a randomized list for each group, from which field staff were able to contact each name in order of listing. A minimum of four calls was made to each listing before it was substituted. All large contractors/truckers were contacted.

In total, 2,371 of the 3,392 names were attempted, yielding 528 interviews with operators who haul gravel. The final survey results are tabulated on the 518 operators who had hauled gravel in 1988 and/or 1987; in other words, the active segment.

Interviewing took place in June, 1989, following two pilot tests of the questionnaire in the second half of May, 1989. The pilots were carefully monitored with respect to question comprehension and flow and rates of co-operation in granting both the interview and providing financial data.

Interviews were conducted with senior personnel only, generally the owner or owner-operator (83%), a president / vice-president / director (8%) or manager (5%).

WEIGHTING AND ESTIMATION

Since the sample was drawn disproportionately, it was necessary to weight the survey results to ensure that they represent the industry as a whole. The weights applied are based on estimates derived during the survey process itself, for each sample group.

In essence, the number of names on the original list was reduced by the percentage of operators who proved to have 'not in service' numbers and by the percentage who do not haul gravel. The result is an estimate of the number of gravel haulers in each sample group.

A weight was then calculated and applied to each interview in the group to project the interviews to the estimated total number of gravel haulers in that group. Weights ranged from 1.00 among large contractors (since they were all surveyed) to 3.60 in AT&U Region 6. In other words, in Region 6, each of the 81

SIZE OF THE ALBERTA GRAVEL HAUL INDUSTRY

	TOTAL GRAVEL HAUL INDUSTRY		SMALL INDEPENDENTS		LARGER OPERATORS	
	#	%	#	%	#	%
SAMPLE SIZE	518		436		81	
ESTIMATED NUMBER OF OPERATORS	1327	100.0	1118	100.0	207	100.0
AT&U REGION						
1	95	7.2	67	6.0	28	13.4
2 (including Calgary)	161	12.1	125	11.2	34	16.6
3	167	12.6	139	12.4	28	13.6
4	170	12.8	139	12.4	31	15.2
5 (including Edmonton)	443	33.3	415	37.1*	28	13.5
6	292	22.0	234	20.9	58	27.8
METRO AREAS						
Edmonton	176	13.3	164	14.7*	12	5.8
Calgary	78	5.9	57	5.1	19	9.2
GROSS TOTAL REVENUE, 1988						
Up to $49,999	372	28.0	365	32.6*	7	3.6
$ 50,000 - $ 99,999	440	33.1	421	37.6*	17	8.3
$100,000 - $149,999	196	14.8	175	15.6	21	10.3
$150,000 - $249,999	110	8.3	72	6.4	38	18.6*
$250,000 - $500,000	65	4.9	42	3.8	23	11.3*
$500,000 and over	143	10.8	44	3.9	99	47.9*
NUMBER OF TRUCKS						
1	749	56.4	749	67.0	-	-
2	246	18.5	246	22.0	-	-
3	124	9.3	124	11.0	-	-
4	69	5.2	-	-	69	33.3
5+	138	10.4	-	-	138	66.7

NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.

interviews conducted represented 3.6 truckers, or 292 gravel haulers in total. Details on the weights applied may be found in Appendix 2.

Overall, the 518 truckers interviewed represent 1,327 active gravel haulers and make up 39% of the industry. The sample thus provides excellent coverage of the industry.

At this point it is also relevant to briefly review the refusal rates obtained, since co-operation and provision of financial data were critical to the validity of the survey, the estimation of the size of the industry and the financial model.

By all standards, these rates were extremely low:

Total listings attempted	2,371
- Refused interview altogether	81
Total contacted who do gravel hauling	589
- Refused full interview	22
- Refused revenue data	39

More detail on these rates is shown in Appendix 2.

SAMPLING ERROR

The overall results of the data analyzed in this survey, that is, for the 518 of the 1,327 active truckers in the industry, have a maximum sampling error of ±3.4% at the 95% confidence level.

The maximum sampling error for each AT&U region (including associated metropolitan areas and large contractors) is as follows:

AT&U Region	*Sample Size*	*Estimate of Industry Size*	*Maximum Sample Error*
1	36	95	±12.9%
2	87	161	± 7.1%
3	62	167	± 9.9%
4	54	170	±11.0%
5	198	443	± 5.2%
6	81	292	± 9.3%

ANALYSIS OF FINDINGS

Active members of the gravel haul industry were defined as being those operators who had hauled gravel in the past two years, i.e., 1988 or 1987.

It is estimated that there are 1,327 such operators in Alberta, of whom 97% had hauled gravel in 1988 and 90% in 1987.

One-third are located in AT&U Region 5, one-fifth in Region 6 and the remainder more or less equally distributed through the other regions, with the exception of a somewhat smaller Region 1, as shown in Exhibit 6.

Depending on how one defines "small independent truckers", this segment of the industry comprises between 61% (under $100,000 in total revenues) and 84% (own between one and three trucks) of the total (see Exhibit 6). For the purposes of this study, operators owning one to three trucks are considered to be small independents and those with four or more trucks are termed larger operators. As may be seen in Exhibit 6, two in three small independents also have revenues less than $100,000 and own only one truck. Almost half the larger operators have revenues in excess of half a million dollars, and two-thirds own five or more trucks.

Small independent and larger operators are located throughout the province in similar proportions, except in Region 5 and Edmonton itself, where they are more likely to be small independents.

PROFILE OF THE INDUSTRY

A variety of questions was asked about each operator which would aid in understanding the make-up of the industry. These included the main business activity of the company, the number and types of trucks used to haul gravel, other types of goods hauled, the number of operators who act as contractors for road

Exhibit 7

PROFILE OF THE ALBERTA GRAVEL HAUL INDUSTRY

	TOTAL GRAVEL HAUL INDUSTRY	SMALL INDEPENDENTS	LARGER OPERATORS
SAMPLE SIZE	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207
	%	%	%
MAIN BUSINESS ACTIVITY			
Transportation (including hauling logs)	78.1	79.5	70.9
Construction (including excavation)	8.1	6.6	15.6*
Other (including farming, cutting and hauling logs)	13.9	14.0	12.7
ROLE			
Contractor	7.8	5.1	22.8*
Haulage only	92.2	94.9*	77.2
ASSOCIATION MEMBERSHIP			
Alberta Road Builders and Heavy Construction Association	1.4	0.6	5.8*
Alberta Gravel Truckers Association	17.9	17.7	19.3
Other (including Edmonton Truck Owners Union)	2.0	2.2	1.0
None	78.7	79.2	75.8
NUMBER OF EMPLOYEES			
1	47.3	55.5*	2.4
2	21.6	24.1*	8.2
3	9.8	8.7	15.6
4	4.6	4.4	5.2
5+	16.7	7.3	69.0*
Average (#)	5.2	2.6	19.5*

NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.

building projects, the number of employees and whether the company belonged to an association.

Responses to these questions are profiled in Exhibit 7 for the industry as a whole and for small independents and larger operators separately. These profiles are discussed below.

MAIN BUSINESS ACTIVITY AND OTHER GOODS HAULED

MAIN BUSINESS ACTIVITY

Operators were asked whether their main business was farming, logging, transportation or another type of business. If the response was logging, they were asked to clarify whether they both cut and haul logs or only haul logs. Responses are shown in Exhibit 7.

TRANSPORTATION

By far the majority of operators in the gravel haul industry view their main business as being transportation/haulage (78%) and this is true for both small independents and larger operators.

CONSTRUCTION

Eight percent view their business as construction/road construction/excavation and significantly more larger operators see this sector as their area of business.

Those who view themselves as being in the construction industry are far more likely to be contractors (36%) than the industry overall (8%) and to be members of the Alberta Road Builders and Heavy Construction Association (5% versus 1%).

Construction industry participants are larger companies with considerably higher than average 1988 revenues ($2,353,000 versus $427,000) and more employees (24.7 versus 5.2). While they make up 8% of the industry, they provide 15% of the trucks; however, they are disproportionately likely to be using single rather than combination units for gravel haul, contributing 32% of the single axle and 18% of the tandem axle trucks in use in the industry, compared to 12% of the combination units.

This sector considers gravel haulage to be much less important to their business than any other group (25% of minor importance, 30% of some importance versus 8% and 13% respectively for the industry as a whole). The same is true for gravel haulage for AT&U. Companies in the construction sector are more likely than average to haul gravel on private contracts (91% versus 76%).

FARMER/LOGGER/OTHER

Fourteen percent of the industry have their main business in other sectors, primarily farming at 9% and logging (i.e., cut and haul) at 2%. This is the group that has been viewed as having a minor role in the gravel haul industry.

Farmers and loggers are particularly likely to operate in Regions 4, 5 and 6 ($\pm$75% of this group). Contrary to expectations, they are at least as likely to use combination units for gravel haulage as the industry as a whole (farmers 65%, loggers 73% versus 58% for the industry). Furthermore, while 95% of farmers and 64% of loggers who do any gravel hauling worked on AT&U contracts in 1987/88, they are less likely to consider gravel trucking and AT&U gravel haulage critical to the survival of their business than the industry overall (27% versus 55% for gravel haulage and 14% versus 26% for AT&U projects).

These figures suggest that:

- most industry members are "full-time" truckers;
- those whose main interest lies elsewhere use no less efficient equipment than the rest of the industry; and
- while 'farmers / loggers / others' work extensively on AT&U projects, they also work for other road building contractors

(though less so on private contracts) and are less likely to consider AT&U critical to their survival than the industry in general.

These findings call into question the validity of historical reasons (i.e., help the farmer) for maintaining the AT&U gravel haul contract clauses today. They also question whether the activity of this group in the gravel haul industry makes it less efficient than it would be without them.

OTHER GOODS HAULED

When asked what types of goods the company hauls, other than gravel, 15% claimed to haul nothing but gravel. These operators were significantly more likely to have low revenues (under $100,000, 77% versus 61% for the industry as a whole) and more likely to consider gravel hauling critical to their survival (68% versus 55%).

Other goods hauled by 5% or more truckers are:

Dirt/black dirt/soil/peat moss/loam	32.2%
Asphalt	22.0%
Sand	17.0%
Logs	14.2%
Concrete/cement	6.7%
Grain	6.1%
Clay	5.6%

Truckers in AT&U Region 1 were particularly likely to be hauling dirt (51%) while those in the metropolitan areas are more likely than average to haul dirt, asphalt, sand, concrete/cement, snow and clay. Truckers with single/tandem axle units only, are particularly likely to haul dirt and asphalt.

Those who hauled gravel on AT&U projects were no more and no less likely to haul the same mix of goods as those working for other provincial departments, other levels of government or on private projects.

ROLE IN INDUSTRY

It is estimated that there are 104 companies in the gravel haul industry which also function as road construction contractors. They represent 8% of the industry, but 23% of large operators, 36% of companies whose main business is construction and 37% of companies with revenues in excess of $500,000. Their average 1988 revenue was $2,940,000 compared to $214,000 for those who do haulage only.

ASSOCIATION MEMBERSHIP

Only one in five gravel truckers belongs to an industry association, with most of these (18%) being members of the Alberta Gravel Truckers Association. Thus an estimated 237 operators consider themselves to be members of the AGTA.

More than four in ten AGTA members are located AT&U Region 5 (compared to one-third of truckers in the industry), almost half of these in Edmonton itself. AGTA membership is also over-represented in Regions 1 and 2 (both Calgary and the rest of the Region), while few members are located in the northern regions (4 and 6).

Companies which work on AT&U projects are significantly more likely to be members of the Alberta Gravel Truckers Association than those that do not (20% versus 11%).

Membership in the Alberta Road Builders and Heavy Construction Association is strongest among contractors at 12%.

NUMBER OF EMPLOYEES

The number of employees in the business is another indicator of size. While the average company has 5.2 employees, this mean is strongly influenced by the few companies which have hundred of employees. Most are one or two person operations (69%).

Among the small independents, 80% fall into this group, while among the larger operators two-thirds have at least five employees.

Exhibit 8

NUMBER AND TYPES OF DUMP TRUCKS OWNED BY GRAVEL TRUCKERS

	TOTAL GRAVEL HAUL INDUSTRY		SMALL INDEPENDENTS		LARGER OPERATORS	
	#	%	#	%	#	%
SAMPLE SIZE	518		436		81	
ESTIMATED NUMBER OF TRUCKS	3152 ± 206	100.0	1610 ± 130	100.0	1530 ± 113	100.0
Single Axle	73 ± 21	2.3	22 ± 29	1.4	52 ± 13	3.4
Tandem Axle	1460 ± 107	46.3	805 ± 131	50.0	654 ± 61	42.7
TOTAL SINGLE UNITS	1533	486	827	51.4	706	46.1
Tandem and pups	716 ± 52	22.7	402 ± 106	25.0	317 ± 25	20.7
Tandem and wagons	199 ± 36	6.3	78 ± 54	4.8	118 ± 21	7.7
Highway tractor and end dumps	543 ± 77	17.2	235 ± 95	14.6	302 ± 47	19.7
Belly dumps	159 ± 77	5.0	67 ± 54	4.2	91 ± 13	5.9
TOTAL COMBINATION UNITS	1619	51.4	783	48.6	828	54.1
AVERAGE NUMBER OF TRUCKS	2.37		1.44		7.39	

NOTE: Figures may not add due to rounding.

Other groups likely to have considerably more than two employees are those with total revenues greater than $150,000, contractors and companies whose main business is construction.

NUMBER AND TYPES OF TRUCKS

Concern has been expressed within AT&U that the industry is less productive and efficient than it would be if more combination units, with their greater capacity and lower haul costs, were used on AT&U projects. It is felt that the use of small independents, encouraged by the local and three truck clauses, and the application of minimum haul rates based on the less efficient tandems, inhibits use of large truck combinations.

Estimates of the number of trucks of each type in use in the industry are shown in Exhibit 8. Several comments may be made about these figures.

- Between 2,950 and 3,360 dump trucks are used by gravel truckers in Alberta (i.e., 3,152 ±206, rounded).
- Small independents, who make up 84% of the companies in the industry, own only 51% of the trucks, while larger operators, who make up 16% of the industry, own 49% of the trucks.
- Both segments own the same mix of truck types. This implies that, on the whole, small independents have no less efficient units available than their larger counterparts.
- While there are no statistically significant differences between the types of trucks owned by the two segments, larger operators own 70% of the single axle units and 59% of the tandem and wagons (compared to 49% of all trucks in general).

These figures do not, of course, answer the concern that the industry could be more efficient if more combination units were used. They do, however, suggest that support of small independents through the local and three truck clauses does not make AT&U projects less efficient.

Some validation of the figures shown in Exhibit 8 is provided by a comparison of the survey estimates with 1988/89 Gravel Truck Registrations at AT&U:

	Industry Estimates		***AT&U Registrations***	
	#	**%**	**#**	**%**
Total trucks	**3,152±206**	**100.0**	**2,817**	**100.0**
Single axle	73 ± 21	2.3	6	0.2
Tandem axle	1,460 ±107	46.3	1,449	51.4
Total single units	**1,533**	**48.6**	**1,455**	**51.6**
Tandem and pups	716 ± 52	22.7	722	25.6
Tandem and wagons	199 ± 36	6.3	223	7.9
Tractor and end dumps	543 ± 77	17.2	417	14.8
Belly dumps	159 ± 77	5.0	-	-
Total combination units	**1,619**	**51.4**	**1,362**	**48.4**

The above figures suggest that most trucks used in the industry (with the exception of belly dumps and single axle trucks) are being used on AT&U projects. This is highly likely, given that 84% of the operators had worked on AT&U projects in 1988 and/or 1987.

A comparison of the mix of trucks owned by AT&U operators and those who only haul for other customers shows only one significant difference: AT&U operators are more likely to own tandem and wagon combinations. This may be seen in the table overleaf.

TYPES OF EQUIPMENT USED FOR HAULING GRAVEL FOR DIFFERENT CUSTOMERS

	USE ONE OR MORE ON PROJECTS FOR:			
	AT&U	Other Alberta Government	City/ Municipal/ County	Private Contracts
SAMPLE SIZE	424	120	290	408
ESTIMATED NUMBER OF OPERATORS	1110	306	707	1035
	%	%	%	%
TRUCK TYPE				
Single Axle Dump Trucks	1.4	1.4	2.0	1.7
Tandem Axle Dump Trucks	55.8	57.9	57.5	59.1
Tandem and Pups	35.9	36.2	35.2	36.3
Tandem and Wagons	7.8	8.2	7.2	8.0
Highway Tractor and End Dumps	20.0	23.3	18.1	17.2
Belly Dumps	4.4	3.8	4.2	6.8

NOTE: Figures do not add due to multiple truck type usage.

	AT&U Operators	*Other Customers Only*
Sample Size	424	94
Estimated # Trucks	2,642 ±322	499 ±86
	%	%
Single axle	2.1	3.4
Tandem axle	45.8	49.5
Total single units	47.9	53.1
Tandem and pups	25.3	20.0
Tandem and wagons	7.2*	1.0
Tractor and end dumps	17.2	16.0
Belly dumps	4.2	9.6
Total combination units	52.1	46.7

* Significant

The types of trucks actually used on different customer projects are shown in Exhibit 9. There is no significant difference in the mix used on AT&U projects and those of other provincial government departments, cities / municipalities/counties and on private projects.

The data provided in this section suggest that AT&U contract clauses do not impact the types of trucks being used on their projects.

REVENUES AND EXPENSES

All active gravel haulers included in the survey were required to provide information on their total sales revenues, from all sources, for 1987 and 1988. Since not all respondents could report a precise figure, the option was extended to indicate an income category. For analysis purposes, the mean of those respondents who fell into the category and reported more accurately, was applied to those who simply gave category information. 1988 revenues were estimated in this fashion for 12 1/2% of cases and 1987 revenues for 14 1/2%.

Revenues from gravel hauling and other sources could be estimated for 99% of all respondents.

Operating expenses, including fixed and variable cost allocations, were fully reported by 82% of respondents for 1988 and 78% for 1987.

TOTAL REVENUES

Exhibit 10 compares the distribution and average total revenues for 1987 and 1988 and provides an estimate of the confidence interval (at the 95% level of confidence) for the data. The large variances, especially for the larger operators, stem from the extremely long tail on the distribution for those with revenues over $500,000. For example, the largest company in the sample reported total income of almost $50 million.

Income averages, in and of themselves, should be treated with caution. For example, the 1988 median income for small independents (i.e., the point at which half the group earn more and half earn less) lies between $50,000 and $100,000, in contrast to the mean of $181,000.

GRAVEL HAUL REVENUES

Interpolated data on revenues generated by hauling gravel are shown in Exhibit 11 (Note that these data vary slightly from the figures in the detailed tables since they use a different base).

On average, total revenues for gravel hauling makes up 28% of all revenues earned by companies in this industry. This figure, however, hides a very wide dispersion of dependence on gravel haul (ranging from 0% to 100% in 1988) and is again strongly influenced by the very large companies. This may be seen from the figures below:

Exhibit 10

TOTAL SALES REVENUES, 1988 AND 1987

	TOTAL GRAVEL HAUL INDUSTRY		SMALL INDEPENDENTS		LARGER OPERATORS	
	1988	1987	1988	1987	1988	1987
SAMPLE SIZE	518	518	436	436	81	81
ESTIMATED NUMBER OF OPERATORS	1327	1327	1118	1118	207	207
	%	%	%	%	%	%
None	-	2.8	-	3.1	-	1.1
Up to $49,999	28.0	32.3	32.6	37.7	3.6	3.1
$50,000 - $99,999	33.1	28.5	37.6	32.8	8.3	5.1
$100,000 - $149,999	14.8	13.3	15.6	13.4	10.3	13.3
$150,000 - $249,999	8.3	7.3	6.4	5.6	18.6	16.6
$250,000 - $499,999	4.9	5.6	3.8	3.9	11.3	14.8
$500,000 and over	10.8	10.2	3.9	3.6	47.9	46.0
Mean ($000)	427	413	181	176	1760	1694
Standard Deviation	2381	2321	1018	1065	5356	5148
Confidence Interval ($000)	±160	±156	±75	±78	±912	±877

Exhibit 11

1988 GRAVEL HAUL REVENUES

	TOTAL GRAVEL HAUL INDUSTRY	SMALL INDEPENDENTS	LARGER OPERATORS
SAMPLE SIZE	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207
	%	%	%
None	3.4	3.8	1.3
Up to $49,999	50.6	57.5	13.5
$50,000 - $99,999	26.9	29.1	15.0
$100,000 - $149,999	5.9	3.1	20.8
$150,000 - $249,999	4.6	3.6	10.1
$250,000 - $499,999	3.5	1.4	15.5
$500,000 and over	3.5	0.4	20.3
Don't Know/Refused	1.6	1.2	3.4
Mean ($000)	120	56	475
Gravel haul revenues as a percent of total revenues	28%	31%	27%

NOTE: Figures may not add due to rounding.

1988 Revenues:	*Gravel As a % of Total Sales*
Up to $49,999	63%
$50,000 - $99,999	69%
$100,000 - $149,999	50%
$150,000 - $249,999	54%
$250,000 - $499,999	39%
$500,000 and over	22%

Projecting the data to the industry as a whole, suggests that gravel hauling in Alberta in 1988 was worth $159 million. Small independents received $62 million or 39% of the total, despite making up 84% of the operators and providing 51% of the trucks.

OPERATING COSTS AND PROFITS

Since operating costs were not reported by all respondents, revenues were recalculated on the base of the 426 who provided a full data set. While the average revenues in this group are lower than for the sample as a whole, the figures fall within the confidence intervals around the sample means, as shown below.

	Total Sample		*Sample Reporting Costs*
Sample Size	518		426
Estimated # Operators	1,327		1,091
Ave. Total Revenue ($000)			
Industry Total	427 ±	160	377
Small Independents	181 ±	75	186
Large Operators	1,760 ±	912	1,487
Up to $49,999	34 ±	1	35
$50,000 - $99,999	68 ±	1	68
$100,000 - $149,999	118 ±	3	116
$150,000 - $249,999	181 ±	6	181
$250,000 - $499,999	332 ±	16	327
$500,000 and over	3,208 ±	1,405	3,119

Thus this subset of the sample remains representative of the gravel haul industry.

Exhibit 12 provides information on operating costs and profits in the gravel haul industry. The reader is again referred to Appendix 1, Table 7 for caveats about the real interpretation of "profit" in the lower income categories and among small independents.

SUMMARY AND CONCLUSIONS

The Alberta gravel trucking industry is made up of approximately 1,330 active gravel haulers using approximately 3,200 trucks and earning roughly $159 million from gravel hauling - $55 million stemming from AT&U projects.

The large majority (84%) of operators are small independents, owning between one and three trucks, most having gross revenues from all sources below $150,000. They provide 51% of the trucks in the industry but enjoy only 39% of all gravel haul revenues. No obvious reason for this disparity was found in the study since the mix of vehicles used by small independents is no different to that used by larger operators. Given this finding, we also conclude that the presence of small independents in the industry has no bearing on its efficiency.

Fifty-one percent of the trucks in the industry are combination units (tandem combinations and tractor-trailer units) and 46% are tandem dump trucks.

In the industry as a whole, gravel hauling makes up 28% of all revenues, ranging from 66% for small truckers with total revenues under $100,000 to 22% for very large companies earning in excess of half a million dollars.

CUSTOMER GROUPS AND SEASONALITY

GRAVEL HAUL CUSTOMERS

For each year in which the operator had hauled gravel, he was asked whether he had worked on AT&U contracts or projects, on other

1988 AVERAGE OPERATING COSTS AND PROFITS

	TOTAL GRAVEL HAUL INDUSTRY		SMALL INDEPENDENTS		LARGER OPERATORS	
SAMPLE SIZE	426		361		64	
ESTIMATED NUMBER OF OPERATORS	1091		929		161	
	$000	%	$000	%	$000	%
Total Revenues	377	100	186	100	1487	100
Total Operating Costs	305	81	139	75	1264	85
- Fixed Costs	81	22	46	25	281	19
- Variable Costs	224	59	93	50	983	66
Net	72	19	47	25	223	15

	TOTAL REVENUES											
	To $49K		$50 - $99K		$100 - $149K		$150 - $249K		$250 - $500K		$500K +	
SAMPLE SIZE	124		147		54		40		22		39	
ESTIMATED NUMBER OF OPERATORS	302		381		147		104		54		103	
	$000	%	$000	%	$000	%	$000	%	$000	%	$000	%
Total Revenues	35	100	68	100	116	100	181	100	327	100	3119	100
Total Operating Costs	23	66	43	64	81	70	145	80	259	79	2599	83
- Fixed Costs	9	27	15	23	33	28	49	27	101	31	620	20
- Variable Costs	14	39	28	41	49	42	96	53	158	48	1979	63
Net	12	34	25	36	35	30	36	20	68	21	520	17

NOTE: Figures may not add due to rounding.

Alberta Government provincial projects, on city, municipal or county projects and on private contracts or projects. The responses are shown in Exhibit 13.

MULTIPLE CUSTOMER BASE

Most operators in the industry (approximately 80%) had worked on AT&U projects and on private contracts in the past two years. Half had worked for municipalities while one in four had hauled gravel for another provincial government department. Large operators were significantly more likely to have worked for other provincial government departments and municipalities than small independents.

There is obviously considerable duplication across customers, with the same operators being subject both to AT&U contract clauses and free market pressures. The duplication is clearly shown in the figures below, based on the total of 1,327 operators in the industry. For example, 65% of all operators in the industry worked both on AT&U and private contracts in the past two years.

	AT&U	Other Alberta Gov't	City/ Municip/ County	Private
AT&U	84%	--	--	--
Other Alberta Gov't	20%	23%	--	--
City/Muncip/ County	43%	15%	53%	--
Private	65%	19%	42%	78%

CUSTOMER PROFILES

Exhibit 13 also shows that operators who worked solely on non-AT&U contracts were significantly more likely to be working on municipal contracts than those who haul gravel for AT&U.

We saw earlier that this group is more likely to use tandem trucks and belly dumps when hauling gravel. Other significant ways in which these two groups differ are:

- AT&U operators are more likely to be farmers (10% versus 3%);
- Non-AT&U operators are more likely to haul snow and a miscellany of other goods (10% versus 3%, and 20% versus 12% respectively);
- Non-AT&U operators are also far more likely to be located in metropolitan centres (38% versus 16%), while AT&U operators are more likely to be located in the northern regions (38% versus 16%);
- AT&U operators have higher membership in the Alberta Gravel Truckers Association (19% versus 11%);
- AT&U operators were far more likely to haul gravel year round in 1988 (61% versus 29%) while non-AT&U truckers were more likely to work only in summer (57% versus 28%); and
- AT&U operators are significantly more likely to feel that their business could not survive without hauling gravel (58% versus 43%), and one in four feel their business could not survive without hauling gravel for AT&U.

CONTRIBUTIONS TO REVENUES, BY CUSTOMER

INDUSTRY STRUCTURE

Operators were asked what proportion of their gravel haul revenues originated from work on AT&U, other provincial government, municipal and private contractors. Projection of the percentages on to the gravel haul revenues on a case by case basis provides the customer revenue information shown in Exhibit 14.

AT&U expenditures on gravel hauling are projected at $55 million from the survey data, a figure that is extremely close to the estimate of actual expenditure:

GRAVEL HAUL CUSTOMERS

	TOTAL GRAVEL HAUL INDUSTRY			SMALL INDEPENDENTS			LARGER OPERATORS		
	1987/88	1988	1987	1987/88	1988	1987	1987/88	1988	1987
SAMPLE SIZE	518	500	467	436	419	387	81	80	79
ESTIMATED NUMBER OF OPERATORS[1]	1327	1282	1196	1118	1076	991	207	205	203
	%	%	%	%	%	%	%	%	%
HAULED GRAVEL FOR:									
Alberta Transportation and Utilities	83.7	79.2	75.2	85.0	80.7	75.7	76.7	71.3	72.6
Other Alberta Government Departments	23.1	20.8	22.0	21.1	18.6	20.6	32.8*	31.5*	28.3
Cities, Municipalities or Counties	53.3	52.7	51.7	50.9	50.7	49.2	65.7*	62.8*	63.4*
Private Contracts	78.0	76.0	77.5	76.9	74.8	76.2	84.0	82.1	83.7

	HAULED GRAVEL ON: ANY AT&U PROJECTS	ONLY NON-AT&U PROJECTS
	1987/88	1987/88
SAMPLE SIZE	424	94
ESTIMATED NUMBER OF OPERATORS	1110	217
	%	%
HAULED GRAVEL FOR:		
Alberta Transportation and Utilities	100.0	-
Other Alberta Government Departments	24.1	17.8
Cities, Municipalities or Counties	51.2	63.9*
Private Contracts	77.5	80.9

[1] Base reflects number of operators hauling gravel in each year.
NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.

Exhibit 14

1988 GRAVEL HAUL REVENUES BY CUSTOMER

	TOTAL GRAVEL HAUL INDUSTRY			SMALL INDEPENDENTS			LARGE OPERATORS		
	Average	Total	Percentage	Average	Total	Percentage	Average	Total	Percentage
SAMPLE SIZE[1]	500	500	500	419	419	419	80	80	80
ESTIMATED NUMBER OF OPERATORS[1]	1282	1282	1282	1076	1076	1076	205	205	205
	$K	$M	%	$K	$M	%	$K	$M	%
TOTAL GRAVEL HAUL REVENUES[1]	124±34	159.0	100	58±15	62.2	100	480±190	98.4	100
SOURCE									
Alberta Transportation & Utilities	43±19	55.0	35	21± 6	22.7	36	160±114	32.8	33
Other Alberta Government Provincial Departments	6± 3	7.7	5	4± 3	4.7	8	15± 7	3.0	3
Cities, Municipalities or Counties	24±10	30.6	19	12± 3	12.4	20	91± 62	18.6	19
Private Contracts	51±14	65.5	41	21± 4	22.4	36	214± 82	43.9	45

1 Based on only those who did any gravel haulage in 1988.

NOTE: Figures may not add due to rounding.

PERCEIVED IMPORTANCE OF GRAVEL HAULING AND AT&U GRAVEL HAULING

	TOTAL GRAVEL HAUL INDUSTRY		SMALL INDEPENDENTS		LARGER OPERATORS	
	Gravel	AT&U	Gravel	AT&U	Gravel	AT&U
SAMPLE SIZE	518	424	436	361	81	62
ESTIMATED NUMBER OF OPERATORS	1327	1110	1118	950	207	159
	%	%	%	%	%	%
Minor importance	7.7	9.0	7.7	8.5	7.9	11.7
Some importance	13.3	19.1	13.8	18.5	10.8	22.3
Very important	23.5	46.0	22.8	44.4	27.5	56.0
Business could not survive without it	55.2	25.9	55.5	28.5*	53.8	9.9
Don't know	0.2	-	0.2	-	-	-

NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.

1988 AT&U Gravel Haul Expenditures

Summer building program	$39.24 million	*
Winter Works program	$ 8.94 million	**
In-place contracts	$ 5.35 million	***
	$53.53 million	

* Based on value of tendered contracts in 1988.

** Mid-Nov. 87 - Mar. '88 = $8.4 million
Dec. 88 - Mar. 89 = $12.9 million
As March is a slow month it was considered to count for half a month in expenditure terms. The calculation for 1988 is as follows:

1987/88: 2.5 ÷ 4 months x $8.4 M = $5.25 M
1988/89: 1 ÷ 3.5 months x $12.9 M = $3.69 M
$8.94 M

*** In place contracts account for 15% of all AT&U contracts. Assuming the gravel haul component, by value, is 12% (due to the operation of market rates) the calculation is: $39.24 M ÷ .88 = $44.59 M for all contracts. The in-place component is then $44.59 M - $39.24 M = $5.35 M.

AT&U hauling makes up 35% of the revenues in the industry, exceeded by the 41% spent on private contracts. Larger operators receive a higher proportion of gravel revenues from private contracts than do small independents, who have a higher contribution from government projects. Although one in four operators work on contracts for other provincial departments, the contribution to total revenues is quite small at 5%.

It is interesting that both small independents and larger operators, on average, earn one dollar in five from municipal contracts, even though the larger operators are significantly more likely to do work in this sector.

DEPENDENCE ON AT&U

As in our previous discussion of revenues, average revenues are influenced by the wide dispersion within the industry, since operators reported anything from 0% to 100% of their gravel haul revenues from AT&U projects.

Thus, although 35% of gross gravel revenues in the industry originate from AT&U, the median is 20%, (i.e., half the operators report earning less than 20% of their gravel revenues from AT&U and half earn more: and within the lower group, 21% had no AT&U revenue at all).

Operators were asked how important they believe (a) gravel hauling and (b) gravel hauling on AT&U projects is to their company. Responses are shown in Exhibit 15.

Over half the members of the industry believe that gravel hauling is critical to the survival of their businesses and this is true both for small independents and larger operators. Companies for which general gravel hauling is critical are more likely than average to be in the transportation business (73% versus 62%).

Given that most operators work for more than one customer, it is not a surprise that the proportion of AT&U operators who believe AT&U work to be critical, is lower than for gravel hauling in general. Yet as many as one in four AT&U operators feel their business could not survive without AT&U. Small independents are significantly more likely to be critically dependent on AT&U than larger operators (29% versus 10%). Other characteristics of this group are that they are concentrated at the low total revenue end of the industry (up to $150,000, 94% versus 76% for the industry), have fewer trucks at their disposal (1.75 versus 2.37 for the industry overall), are more likely to be located in AT&U Region 4 and less likely to be in the metropolitan areas (25% versus 13% and 9% versus 19% respectively). They are also more likely to haul gravel year round (69% versus 55%).

Exhibit 16

1988 REVENUES BY PERCEPTUAL IMPORTANCE GROUP

	IMPORTANCE OF:							
	GRAVEL HAULING				AT&U GRAVEL HAULING			
	Minor	Some	Very	Survival	Minor	Some	Very	Survival
SAMPLE SIZE	40	70	121	286	40	83	194	107
ESTIMATED NUMBER OF OPERATORS	102	177	312	733	100	212	511	288
Ave. Total Revenue ($K)	943	658	341	338	772	462	367	330
Total Revenue ($M)	96.2	116.5	106.4	247.8	77.2	97.9	187.5	92.4
Gravel Haul Revenue ($M)	5.1	11.3	32.8	109.2	11.1	28.2	68.0	33.1
Gravel as a Percent of Total Revenue	5%	10%	31%	44%	14%	29%	32%	37%
AT&U Revenue ($M)	1.1	3.6	8.3	41.9	1.2	4.4	30.1	18.7
AT&U as a percent of:								
- Total Revenue	1%	3%	8%	17%	2%	5%	16%	20%
- Gravel Revenue	22%	31%	26%	38%	11%	16%	50%	55%

NOTE: Data may not correspond with detailed tables due to use of different sample bases.

Most truckers (just under half) see AT&U work as very important for their companies.

Exhibit 16 quantifies the value of this importance. From this exhibit is clear that:

- gravel hauling and AT&U hauling becomes less important as average total revenues from all sources rise;
- gravel hauling becomes more important as gravel revenues increase as a percentage of total revenues (from 5% when it is of minor importance to 44% when it is critical to survival); and
- AT&U hauling becomes more important as AT&U revenues increase as a percentage of total revenues (from 2% to 20%) and as a percentage of all gravel hauling revenues (from 11% to 55%).

It should be noted once again that these figures are strongly influenced by the variances in the revenues. For example, almost half the truckers who believe gravel hauling to be critical to their survival report that gravel haul revenues make up 80% or more of their total revenues; and about half the truckers who consider AT&U critical to their survival report AT&U revenues as making up more than 40% of their total revenues.

For those to whom AT&U is critical, AT&U still provides only 20% of all revenues and 56% of gravel revenues.

SEASON IN WHICH GRAVEL TRUCKING DONE

The earlier indications that there are few dilettantes in the gravel trucking industry appear to be supported when the data in Exhibit 17 are viewed. There has been a perception that truckers involved in winter haulage are merely subsidizing other, more important activities (e.g., farming).

The survey clearly shows that only one in ten truckers confine their activity to the winter, while over half haul gravel both in summer and winter. Winter haulage appears simply to be part of the total activity in the gravel industry.

Winter haulers are more likely to be small independents than larger operators and this is true for gravel haulage in general and for those participating in the AT&U Winter Works program.

It is also clear from the data that fewer companies participated only in the summer in 1988 than had done so in 1987.

Among those who hauled gravel on AT&U projects in the time frame covered by the study (1987-88), approximately half worked for AT&U year round (a similar proportion to the industry overall), but approximately one-quarter (as opposed to one in ten overall) worked for AT&U in winter only. Viewed in a slightly different way, we find that 87% of those who worked in winter at all in 1988 were involved in the AT&U Winter Works program, while only 66% of those who hauled gravel in summer in 1988 did so for AT&U. It is clear that AT&U is a major supporter of the industry in the winter months when such work is available.

SUMMARY AND CONCLUSIONS

The vast majority of industry operators (84%) work on AT&U projects; and most work for other customers as well, particularly on private contracts.

The Winter Works program is highly beneficial to AT&U operators, allowing three in five to haul gravel year round. It does not act primarily as a way of subsidizing the farmer/logger/other group, but is rather an integral part of the industry, enabling full-time truckers to work in the winter.

AT&U operators are more dependent than average on gravel haul income and are more likely to be located in Northern Alberta and less likely to be in the metropolitan areas than the industry overall.

Most truckers perceive AT&U income as being very important to their business and one-quarter believe it to be critical to their survival, particularly the small independents.

ATTITUDES TO AT&U AND ITS CONTRACTUAL CONDITIONS

REASONS FOR WORKING ON AT&U PROJECTS AND FOR NOT DOING SO

Gravel haulers who had worked on AT&U projects in the past two years were asked for their reasons for doing so and to describe the advantages/benefits. They were also asked to describe the disadvantages or problems in working on AT&U projects.

Those who had not worked for AT&U were asked why they had not done so.

ADVANTAGES AND BENEFITS

There are three major reasons for working on AT&U projects:

- it is a source of business and a source of revenue (32%);
- the rates are advantageous (29%); and
- there is an element of surety or security in working on these projects (28%).

Less frequently mentioned reasons include the timing of work (13%), location (8%), provision of a supplementary income (8%), personal satisfaction (7%) and working conditions (3%).

Operators who view AT&U work in the practical light of providing income said things such as: "beats doing nothing/take any job I can get/it's a job" (12%), "the money/increase revenue" (10%) and "being able to survive/keeps me from going on welfare" (10%)". These types of reasons were especially likely to be mentioned by large operators and those in the construction industry (approximately 50%).

Operators who referred to advantageous rates as a reason for working on AT&U projects said such things as "best rates/make a decent living/money is good" (22%) and "set rate/flat rate/everybody gets the same" (7%).

The feelings of security or surety which were voiced generally related to payment: "get paid on time/every two weeks" (16%), "assured payment/guaranteed/safe" (9%) and "steady work/always available/steady income" (5%). The extent to which this type of reason is mentioned suggests that life is more difficult for operators on non-government projects. Perhaps not surprisingly, this reason is much less likely to be mentioned by larger operators (14%) than small independents (31%).

Operators who like the timing of work on AT&U projects were generally referring to work in the winter, when little else is available (11%). This is particularly so for contractors located in the metropolitan areas (21%).

Only 1% referred to compatibility of AT&U work with farming activities (7% among the farming/logging/other group). A higher than average proportion of this group (19% versus 8%) referred to work on AT&U projects as supplementing their income: "helps me out/extra work/sideline".

DISADVANTAGES AND PROBLEMS

Forty percent of AT&U operators did not feel there were any problems in working on AT&U projects. Problems and disadvantages that were mentioned most frequently covered the following topics:

- working conditions (20%);
- lack of work (14%);
- rates/income (13%);
- competition (12%); and
- non-adherence to contract conditions (5%).

The working conditions that come in for most criticism related to over-trucking, "too many trucks/overbooking trucks" (8%) and "waiting time/wasting time" (2%). Five percent expressed dissatisfaction with the need to "leave home area for work/have to travel far/ spread over wide areas", especially in AT&U Region 2 (16%). Other problems with working conditions included poor roads (2%) and lack of coordination, communication, supervision and control (3%), none of which have any bearing on the contract conditions under review.

This is true also for the next most frequently mentioned problem - the fact that 14% of the operators feel they "don't get enough work/ slow periods/not steady enough"!

Among the 13% who complained about rates, 7% felt "rates are low/some companies pay more" and 4% referred to rates having been effectively cut due to no raises being implemented after 1981, while expenses continued to rise.

Competition is a problem for the operators since "so many are after AT&U jobs" (4%). The contractors themselves are accused of unfairness/favoritism or bringing in outsiders such as farmers; lack of a core number is a problem for some (approximately 5% in total). Two percent complained about the local truck clause limiting their ability to get AT&U work.

The 5% who mentioned non-adherence to contract specifications as a problem made comments such as: "contractors undercut rates/ pay you what they think/at their mercy" (3%) and "kickbacks/money switching hands under the table/money forced upfront for the job" (2%). Gravel haulers (excluding contractors) who are members of the Alberta Gravel Truckers Association were significantly more likely than non-members to raise this issue (12% versus 4%). There could be many reasons for this relationship (e.g., increased awareness due to Association communications, discrimination resulting in a need to band together with others, etc.). Nevertheless, these figures put a boundary in place on the extensiveness of the problem (assuming that anyone who was unwillingly participating in kickbacks would be likely to voice their complaint here).

REASONS FOR NOT DOING AT&U GRAVEL HAULING

Reasons for not hauling for AT&U included:

- lack of work offered by AT&U (35%);
- lack of need for AT&U work (28%);
- work location problems (17%); and
- low pay (11%).

Of the 35% of operators who would work for AT&U if such work were available, 23% said "never get called/applied in '87/'88/never offered me work", 8% claimed there is "not enough work/no work/cutting back" and 8% were "unsuccessful in bidding/difficult to get work with them". In addition to this 35%, 6% had worked for AT&U prior to 1987 and, presumably, would do so again, while another 4% had not yet learnt how to get AT&U work.

Locational problems all dealt with a need to work outside their local area on AT&U projects: "too far away/tired of roaming the province", "stay in town/prefer working in town". In view of the local truck clause, one might have expected inability to work outside the local area to be the reason for not working on AT&U projects rather than reluctance to work away from home. This suggests that the 50% local requirement (and concomitant 50% non-local capability) is sufficiently loose to permit work across the province, if so desired. Alternatively, multiple addresses have solved the problem for those who are interested (although fewer than 200 such duplicate listings were found during cleaning of the sample frame - about 15% of the industry).

Eleven percent of truckers do not work for AT&U for revenue reasons, "not worthwhile/ low pay/don't make money hauling for government." A further 3% do not do AT&U

Exhibit 18

AWARENESS OF AT&U CONTRACTUAL CONDITIONS

	TOTAL GRAVEL HAUL INDUSTRY	SMALL INDEPENDENTS	LARGER OPERATORS	AT&U OPERATORS	NON-AT&U OPERATORS
SAMPLE SIZE	518	436	81	424	94
ESTIMATED NUMBER OF OPERATORS	1327	1118	207	1110	217
	%	%	%	%	%
LOCAL TRUCK CLAUSE	85.5	85.6	84.7	87.9**	73.0
THREE TRUCK RULE	72.4	72.2	73.2	74.5**	61.3
MINIMUM HAUL RATE	82.8	81.5	89.5*	85.0**	71.5

NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.
Asterisk (**) denote significant differences between AT&U and non-AT&U operators.

haulage because of kickbacks," contractors were paying less/asked how much money we had upfront".

CONCLUSIONS

A review of the reasons for and for not hauling gravel on AT&U projects leaves the distinct impression that AT&U is a well regarded employer.

AT&U projects provide sought after work opportunities, especially in winter and an assurance of regular payment at rates which are more frequently viewed as favorable than unfavorable.

Negative aspects of working on AT&U projects primarily concern the non-local, often far-flung location of the building site, since there is a strong preference for local work. A variety of complaints on operational and organizational issues, especially over-trucking and lack of co-ordination and control, were voiced, but are not a deterrent to participation in AT&U contracts.

Kickbacks were mentioned as a problem by 5% of AT&U operators and as a deterrent by 3% of non-AT&U operators.

AWARENESS OF AND ATTITUDES TO AT&U CONTRACTUAL CONDITIONS

AWARENESS LEVELS

Before discussing the three gravel haul contract clauses with the operators in the sample, each clause was described to the respondent, who was then asked whether he knew about or had heard of the condition. The responses are shown in Exhibit 18.

While most truckers know about the requirements, this knowledge is nowhere near saturation levels (effectively at the 95% mark), even among those who claim to have worked on AT&U projects.

Awareness is lowest for the three truck clause and highest for the local truck clause. Given the awareness rates, ranging from 75% to 88% among AT&U operators, it is difficult to believe that truckers can effectively police application of the conditions, not only because of those who have no knowledge of them, but because the awareness rates suggest a lack of exchange of information even within such a small industry. In fact, Alberta Gravel Truckers Association members, who do have a common information source, are consistently more likely to be cognizant of the conditions (local truck clause - 92%, three truck clause - 87%, minimum haul rate - 91%).

Highest awareness rates are found among those who have the most to lose, i.e., those operators who believe AT&U contracts are critical to the survival of their business (92% local truck clause, 85% three truck clause, 90% minimum haul rate).

In the opposite vein, truckers located in AT&U Region 5 outside Edmonton have significantly lower than average awareness levels (73%, 66% and 74% respectively for the local and three truck clauses and minimum haul rate).

PERCEIVED PURPOSE OF THESE CLAUSES

When asked why they thought the three clauses were included in provincial contracts, the operators were in overwhelming agreement that they were there to protect small local operators (38%), and to give everyone a fair chance to work (32%). These comments appear to relate mainly to the local and three truck clauses.

Comments relating to the minimum haul rate were far fewer: "to have set rates/hold rates" (9%) and the strongly and emotionally worded "to stop business being cut-throat/kickbacks/ contractors changing rates/racketeering/being ripped off" (7%). Unlike the other clauses, fairness, either of the rate itself or consistency in applying the rate, does not appear to be widely perceived as a purpose of the minimum haul rate - and neither is anything else.

Two percent of the truckers made comments indicating that the conditions are not being applied, well within the 5% boundary

Exhibit 19

OPINIONS OF AT&U CONTRACTUAL CONDITIONS

	LOCAL TRUCK CLAUSE			THREE TRUCK RULE			MINIMUM HAUL RATE		
	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators
SAMPLE SIZE	518	436	81	518	436	81	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207	1327	1118	207	1327	1118	207
	%	%	%	%	%	%	%	%	%
ANY POSITIVE OPINIONS	68.4	68.9	66.6	55.0	55.8	51.4	33.6	32.4	39.9
Non-specific (e.g., good)	52.8	52.8	53.3	32.5	33.5	27.2	0.2	0.2	-
Advantageous/protective	24.3	23.0	31.3	10.3	9.7	13.6	12.2	11.8	14.2
Fair	10.8	10.3	13.1	19.9	20.4	17.5	19.2	17.7	27.6
Other	4.8	5.4*	1.5	4.7	5.0	3.1	4.0	4.4	2.2
ANY NEGATIVE OPINIONS	12.3	12.3	12.1	13.8	13.0	18.2	42.9	45.2*	30.0
%/# too high or low	6.0	6.1	5.2	13.8	13.0	18.2	42.9	45.2*	30.0
Restrictive	4.8	4.8	5.1	-	-	-	-	-	-
Unselective	1.9	1.7	3.1	-	-	-	-	-	-
Non-specific (e.g., do not like)	4.8	4.6	5.1	-	-	-	-	-	-
ANY NEUTRAL OPINIONS	11.4	11.6	10.5	11.0	11.8	7.0	12.6	11.2	20.2
Abused	8.8	9.3	6.2	8.4	9.5	2.4	11.6	10.3	18.7
Other	2.6	2.3	4.3	2.7	2.3	4.6	2.0	1.8	3.5
MISCELLANEOUS	2.2	1.7	4.4	4.0	3.2	8.0	1.3	0.8	2.1
DO NOT KNOW/REFUSED	11.6	11.6	11.9	21.5	22.3	17.4	16.5	17.1	13.5

NOTE: Figures will add to more than 100% due to multiple opinions being expressed.
Asterisk (*) denotes significant differences between small independents and larger operators.

established in the previous section. These truckers were most likely to be located in the metropolitan areas (6%), an interesting finding since participation in AT&U projects is lowest in this group.

OPINION OF THE CLAUSES

The truckers were next asked their opinion of each of these requirements. Exhibit 19 summarizes and contrast the types of responses obtained for each clause.

OPINION OF THE LOCAL TRUCK CLAUSE

The local truck clause, the best known of the three, was also the condition most likely to be regarded in a positive fashion, although comments were generally of the non-specific, "set-up good/alright/OK" variety.

This clause is the most likely to be considered advantageous to the truckers: "locals have chance to work/advantage for small town truckers" (17%) and "keeps outsiders/big contractors out/from monopolizing jobs" (9%).

It is especially favored for this reason in AT&U Region 1 and 2 and least likely to be thought advantageous in Region 5.

Fairness is another positively viewed characteristic of the local truck clause, "fair/shares work/gives everyone a chance (10%)", particularly by haulers as compared with contractors (12% versus 1% respectively). Five percent, especially small independents, felt it is "great to work locally/near home/don't have to travel for work."

Negative views were expressed by 12% of operators, with 6% suggesting that there should be higher proportions of local trucks (up to 100%). An almost equal number, 5%, took the opposite view and disagreed with the restrictions placed on where one can work. Two percent complained that the clause results in the use of local farmers, unskilled truckers or unsafe trucks, to the detriment of skilled professionals.

Abuse of the local truck clause was mentioned by 9%, "not adhered to/not enforced/abused/ kickbacks/get P.O. Box and say they're local".

OPINION OF THE THREE TRUCK CLAUSE

The three truck clause was viewed primarily in a positive light, especially in the three southern AT&U Regions. Most of the positive comments were again of the non-specific "good/good idea" variety, particularly among haulers as compared to contractors (38% versus 21%).

More specifically, the three truck clause is considered "fair/gives a man with one truck a chance/spreads it around/shares" (20%) and "stops big contractors from monopolizing/ checks brokers" (10%).

On the negative side, criticism of the clause is generally related to the number being too high (11% - one or two being equally preferred), rather than too low (3%).

Abuse of the three truck condition was mentioned at the same rate as abuse of the local truck clause, 8%, with references to a lack of enforcement/monitoring and to the practice of registering more than three trucks under different names. Haulers were more likely to mention abuse of this condition than contractors (9% versus 2%).

OPINION OF THE MINIMUM HAUL RATE

In glaring contrast to the other two conditions, opinions expressed about the minimum haul rate were vastly more likely to be negative, especially among small independents. More than one in three operators felt the "rates are too low/should be higher/same since 1981" (36%) and 15% felt "rates should keep up with inflation/expenses/tires, fuel, etc.". The more dependent the operator felt his business to be on AT&U gravel haul, the more likely he was to criticize the rate:

AT&U is:	*Rate Too Low*
Not a customer	28%
Of minor importance	36%*
Of some importance	40%*
Very important	43%*
Business could not survive without it	59%*

*46% of all AT&U contractors on average

This has important implications for any future changes to the minimum haul rate.

In contrast to the above, 19% felt the "rates fair/good" (20% among AT&U operators). This is a similar proportion to the 22% who mentioned that good rates are a reason for working on AT&U projects.

While many more operators perceive the rates as being too low than see them as being fair or good, one can conceive of stronger wording than actually occurred (e.g., 'hard to make ends meet', 'can't make a decent living')., etc. The impression conveyed is of a belief that because rates haven't been raised since 1981, they must be too low and those who are most dependent on AT&U will be most aware of the lack of change.

AT&U Region 4 operators voiced greatest criticism of the rates (62% versus 43% overall) while those in the metropolitan areas were significantly less critical (32%).

Other positive opinions of the minimum haul rate relate to its role, primarily in protecting the trucker: "should be there/stay/need it/need protection" (7%), "solves broker problem/ shouldn't pay broker's fee" (2%), "prevents truckers from undercutting each other" (2%), "should apply to all jobs/should be government protection" (2%). An additional benefit is that it is "guaranteed/good to know what you're making/your pay" (4%).

Given the publicity surrounding kickbacks, we might have anticipated a higher rate of complaint about abuse of the minimum haul rate than the other conditions. While the rate was higher, it was not significantly different. Comments relating to abuse included: "contractor/sub-contractor cuts rates/pay what they want/take kickbacks" (6%) and "as long as it's enforced/rules never adhered to" (5%). It is of particular interest that operators who use combination units to haul gravel were significantly more likely to complain about abuse than those who only use single/tandem axle trucks (15% versus 7%). This suggests that the kickback problem may be related to rates paid for combination units.

CONCLUSION

The local truck clause is the best known and most popular of the three contractual conditions since it meets the desire of many operators to work close to home.

The three truck clause is the least well known of the clauses and is perceived as having somewhat less relevance to the industry since so many truckers have fewer than this number of trucks. Its benefit lies, and is known to lie, in helping the small independent to share in the available work.

The existence of a minimum haul rate is considered to be positive in protecting the trucker, and especially the small independent, against exploitation. However, the rate itself is considered too low, mainly because it has not been increased since 1981.

ANTICIPATED EFFECTS OF AND REACTIONS TO THE ELIMINATION OF AT&U CONTRACTUAL CONDITIONS

Operators were presented with a worst case scenario, elimination of the local truck clause, the three truck clause and the minimum haul rate. They were asked firstly, what the effect would be on them; secondly, how they would react and what they would do in the event of elimination of each clause; and thirdly, whether reduction or elimination of the conditions would result in a change in the equipment they operate.

Exhibit 20

EFFECT ON OPERATORS OF ELIMINATION OF AT&U CONTRACT CONDITIONS

	LOCAL TRUCK CLAUSE			THREE TRUCK RULE			MINIMUM HAUL RATE		
	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators
SAMPLE SIZE	518	436	81	518	436	81	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207	1327	1118	207	1327	1118	207
	%	%	%	%	%	%	%	%	%
NO EFFECT	30.6	29.4	37.3	35.8	34.5	43.1	11.3	8.5	26.4*
POSITIVE EFFECT	7.5	7.4	7.7	6.0	5.6	7.5	-	-	-
Increase business	7.0	7.3	4.6	5.2	4.7	7.5	-	-	-
Improve skill/reliability/number of trucks	0.6	0.1	3.1*	0.8	1.0	-	-	-	-
NEGATIVE EFFECT	47.2	48.6	40.2	33.4	35.2	23.8	66.5	68.3*	56.5
Lose protection/more competition	27.5	27.5	27.2	23.9	25.3	16.8	5.2	6.0*	1.1
Break business	13.6	14.6	8.5	6.8	6.9	6.0	18.2	19.7*	10.6
Change ways	5.6	5.7	5.0	-	-	-	1.6	1.5	1.9
Income reduction	-	-	-	-	-	-	34.5	34.3	35.2
General negative (e.g., disasterous)	2.6	3.0	0.8	3.3	3.6	1.5	18.1	17.9	19.4
MISCELLANEOUS	0.6	0.4	1.5	2.3	1.3	7.6	7.2	6.6	10.4
DON'T KNOW/REFUSED	14.1	14.7	13.4	22.9	23.6	19.2	15.4	17.0*	6.7

NOTE: Figures will add to more than 100% due to multiple effects mentioned.
Asterisk (*) denotes significant differences between small independents and larger operators.

Responses are summarized in Exhibit 20, 21 and 22 respectively.

NO EFFECT - NO ACTION

In the case of the local and three truck clauses, approximately one in three operators believe elimination would have no effect on their businesses (31% and 36% respectively) and they would therefore not take any action (31% and 39% respectively). These truckers are more likely to work solely on non-AT&U projects or consider AT&U of minor importance to their businesses. In the case of the three truck clause, a small number feel they are not affected because they only have a few trucks. Some truckers (about 5% in each case) simply feel helpless: "What can you do?/nothing I can do/government makes the laws".

Far fewer operators believe that elimination of the minimum haul rate would not impact their business. The 11% who do feel this way are significantly more likely to be larger operators than small independents and this is also true for the 18% who would do nothing (except perhaps "wait and see" or "continue working and hope for the best").

Operators who are most likely to anticipate 'no effect - no action' are contractors, those in the construction industry and truckers in AT&U Region 2 and in the metropolitan areas.

It is interesting that the same pattern of response was evident when operators were asked about changes to their equipment if the conditions were reduced or eliminated. About one-third (35%) felt there would be no change and this rose to one half among larger operators, those in the construction industry and in metropolitan areas.

POSITIVE EFFECTS

A small group do foresee some positive effects from elimination of the local (8%) and three truck clause (6%), but no one envisages anything good from elimination of the minimum haul rate.

In the case of the local truck clause, the effect of its removal would be to increase business since one could work anywhere (effect, 7%; 5% would "go out of town/move around"). A few larger operators foresee an improvement in the gravel hauling industry since skilled and reliable truckers would be brought in (3% of large operators).

Elimination of the three truck clause would "probably create more work/get more work/better chance to get a job" (5%) and 1% each would "get more trucks/put more equipment to work" and become more competitive.

Five percent expect they would increase the amount of equipment owned, "buy more trucks/add bigger equipment/expand" if the clauses were eliminated. This figure rises to 11% among larger operators and 14% among those with gross revenues in excess of $150,000 (compared to 3% of those with lower revenues). Owners of combination units are more likely to increase their equipment than are those with single axle/tandem trucks only (8% versus 1%), but another 8% of combination unit owners expect a decrease in equipment.

NEGATIVE EFFECTS

Elimination of the minimum haul rate is expected to have the greatest and most widespread negative impact of the three clauses. Removal of the three truck clause is expected to have the least detrimental effect (minimum haul rate - 67%, local truck clause - 47%, three truck clause - 33%).

Most frequently mentioned for the local and three truck clause was a loss of the protection they afford with a concomitant increase in competition from outside and/or large companies (local truck clause - 28%, three truck clause - 24%). This would make it harder to get work and could result in significant rate reductions as "guys would undercut each other".

For the minimum haul rate, 5% felt "the little guy would be squeezed out by the big companies" (particularly the small operators).

Exhibit 21

OPERATOR REACTIONS IF AT&U CONTRACT CONDITIONS WERE ELIMINATED

	LOCAL TRUCK CLAUSE			THREE TRUCK RULE			MINIMUM HAUL RATE		
	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators	Total Gravel Haul Industry	Small Indep-endents	Larger Operators
SAMPLE SIZE	518	436	81	518	436	81	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207	1327	1118	207	1327	1118	207
	%	%	%	%	%	%	%	%	%
NONE	31.3	30.5	36.0	38.7	36.8	48.5	17.9	15.4	31.8*
No reaction	31.3	30.5	36.0	28.8	27.1	38.4	17.9	15.4	31.8*
No effect	-	-	-	10.1	9.7	11.7	-	-	-
LEAVE INDUSTRY	19.3	20.0	15.9	12.8	13.6	8.3	43.3	46.6*	25.2
CHANGE WAYS	4.6	4.9	2.4	5.5	4.1	12.7*	5.7	5.7	6.1
PROTEST	13.8	13.8	13.8	10.3	10.7	8.7	11.0	9.3	20.1*
FEELINGS	14.7	13.9	19.2	4.7	4.6	5.7	2.7	2.6	3.1
Positive (e.g., happy)	3.2	3.4	2.2	4.7	4.6	5.7	-	-	-
Negative (e.g., upset)	11.5	10.5	17.0	-	-	-	2.7	2.6	3.1
MISCELLANEOUS	1.3	1.2	1.8	3.0	3.3	1.5	5.2	5.3	4.5
DON'T KNOW/REFUSED	18.1	18.9	14.3	26.9	28.5*	18.5	15.7	16.7	10.4

NOTE: Figures will add to more than 100% due to multiple reactions being mentioned.
Asterisk (*) denotes significant differences between 1988 and 1987 within each group.

The primary effect of elimination of the minimum haul rate would be a reduction in income as people would "work for nothing/ cheaper/half price" and "contractor would pay whatever he wants". Combination unit owners were especially likely to foresee a rate decrease (17% versus 7% of single/tandem only owners).

Loss of the minimum haul rate was characterized as "devastating/disastrous" by 9% and "bad for business" by 7%. For 18% the effect would be to break the business: "sell truck/quit/close business," "go bankrupt/ broke", "wouldn't be worthwhile hauling". When asked specifically what they would do if the minimum haul rate were eliminated, 43% said they would effectively leave the industry, primarily by selling out/quitting, or by finding something else to do - another business or another commodity to be hauled. Small independents were twice as likely as larger operators to foresee a death knell to their business resulting from elimination of the minimum haul rate.

The loss of gravel haul businesses was also anticipated for the other clauses, at a significant but far lower rate (19% for the local truck clause, 13% for the three truck clause).

For the small group who would change the way in which they do business (about 5% for each clause), the main type of things they would do are, going all over to find business and working for less/being more competitive. A few would work directly for the government, some would not work for the government/would work for a contractor and a few would buy more trucks.

When asked specifically what changes in the equipment operated would result from reduction or elimination of the conditions, 19% expected to reduce or eliminate their gravel haul equipment or get out of the gravel haul business (effectively reducing the number of trucks in the industry). Small independents were twice as likely as larger operators (21% versus 10%) to feel this way - consistent with the expectations of leaving the industry if the haul rate were eliminated. Farmers/loggers/ others were especially likely to suggest they would get out of trucking (24%).

Finally, approximately one in ten truckers, without any media or organized industry encouragement, would protest removal of any of the three conditions. All types of pressure tactics were mentioned - petitions, organized protests, lobbying and general pressure on AT&U/the government; calling or writing to their MLA's; complaints to the truckers union/ Alberta Gravel Truckers Association. Haulers of gravel are almost three times more likely to protest than are contractors and, within the group of haulers (i.e., non-contractors), members of the Alberta Gravel Truckers Association are twice as likely to protest as non-members.

CONCLUSION

The above analysis suggests that truckers feel that the most serious repercussions within the industry can be expected from removal of the minimum haul rate. Fully two in three truckers perceive that this would impact their business negatively since it would result, at best, in a loss of income and at worst, in a loss of their business. Adaptations would be needed, which would include withdrawing from the gravel haul sector to haul other commodities. Almost half the small independents believe they would have to leave the industry either by going out of business or switching.

The financial model described in Section 4 of this report is set up to objectively test the impact of removal or reduction in the minimum haul rate. However, if half the small independents fear for their livelihood, regardless of the "true" effects, this has potentially serious political ramifications - and at least 10% of the truckers are more than willing to protest.

Elimination of the local truck clause is also anticipated by the operators to be to their detriment due to loss of protection and increase in expected competition. Almost one in two truckers - both small independents and larger operators - expect negative repercussions,

Exhibit 22

CHANGE IN EQUIPMENT OPERATED IF AT&U CONTRACT CONDITIONS WERE REDUCED OR ELIMINATED

	TOTAL GRAVEL HAUL INDUSTRY	SMALL INDEPENDENTS	LARGER OPERATORS
SAMPLE SIZE	518	436	81
ESTIMATED NUMBER OF OPERATORS	1327	1118	207
	%	%	%
NO CHANGE	34.9	32.5	47.4*
REDUCTION	19.0	20.6*	10.4
INCREASE	5.2	4.1	11.4*
MISCELLANEOUS	2.9	2.6	4.6
DON'T KNOW/REFUSED	38.7	41.1*	26.1

NOTE: Figures may not add due to rounding.
Asterisk (*) denotes significant differences between small independents and larger operators.

while only a few see it as an opportunity to increase their business. In earlier questions, truckers conveyed that they prefer to work close to home. Removal of the local truck clause is a threat to their ability to so. In addition, one in five operators believe their business to be threatened by loss of this condition.

Opinions on the three truck clause were considerably more mixed, with approximately equal proportions (one in three) anticipating no effect or detrimental effects from elimination of this clause. Significantly fewer operators (13%) considered it a death threat to their businesses.

There is little support for believing that removal of the three conditions, without any other action being taken by AT&U, will result in immediate and significant entrepreneurial activity (e.g., of companies taking the initiative to increase and upgrade their gravel truck fleet, of non-AT&U contractors now taking the opportunity to bid). The few who are likely to do so are already medium size or large operators and, for the most part, this group is as reluctant as the others to forego the minimum haul rate - and more likely to protest its removal!

Given that the existing mix of trucks in the industry is used by all segments, there is also no reason to believe that a shake out of small independents will result in a decrease in single/ tandem axle dump trucks and increase in combination units.

ALBERTA TRANSPORTATION AND UTILITIES
GRAVEL HAUL RATES ANALYSIS MODEL
CONCEPTUAL FRAMEWORK

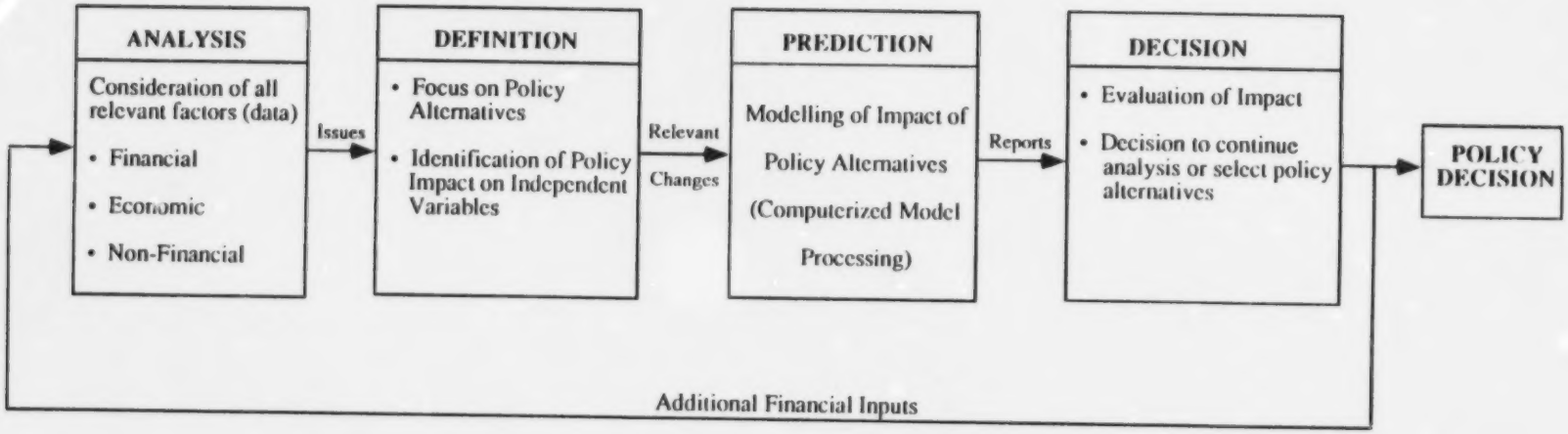


Exhibit 23

4. THE IMPACT ANALYSIS MODEL

PURPOSE

The purpose of the model is to allow for the manipulation of variables to assess the impact of various strategies regarding the Department's truck haul contract conditions. An economic and financial model that will allow for the testing of the impact of the various strategies and a base case scenario that defines the costs and benefits of the current truck haul contract conditions were developed.

MODEL FRAMEWORK

Both the conceptual and technical frameworks within which the model operates must be understood for it to be effectively employed. The conceptual framework incorporates the full scope of an analysis of the issues surrounding the gravel haul rates, of which the computerized model is only one component. The technical framework refers to the operational requirements of using the model effectively.

Exhibit 23 illustrates the conceptual framework for the Gravel Rates Study analysis. As this exhibit illustrates, the model constitutes only one step in the analysis. The first two steps in the process identify and quantify the changes in independent variables which the computer is required to model.

A mandatory requirement of the model was the need to identify the impact of rate changes on individual trucking companies, not just on the gravel haul industry as a whole. To ensure the ability to answer the many questions the Department will want to analyze before making a decision, different analyses, required for any rate change under consideration, were identified. Each of these analyses represents a different component of the same population under the same conditions. These alternative analyses include:

- How will rate changes impact small versus large truckers, as defined by their annual revenues? To determine this it was necessary to identify what proportion of the total population were:
  - small gravel truckers who depend on AT&U for most of their revenues;
  - small gravel truckers with other sources of revenue; and
  - small truckers hauling both gravel and other products.
- What will be the impact on individual truckers based upon the number of trucks they operate?
- What will be the employment impact of the changes under consideration? Although the actual impact on the individual employers cannot be quantified, segregation of the total trucking population based upon the number of employees will provide an indicator of the risk to the average firm in each category.
- How will the impact be distributed geographically?
- What will be the bottom line impact? How many operations will be affected, and how seriously?

A financial model can be generally defined as a set of mathematical equations which calculate the value of dependent variables as a function of independent variables. The mathematical formulas represent the relationships between the two variables. As a result, a financial model is functional only when the relationships

ALBERTA TRANSPORTATION AND UTILITIES
GRAVEL HAUL RATES ANALYSIS MODEL
TECHNICAL FRAMEWORK

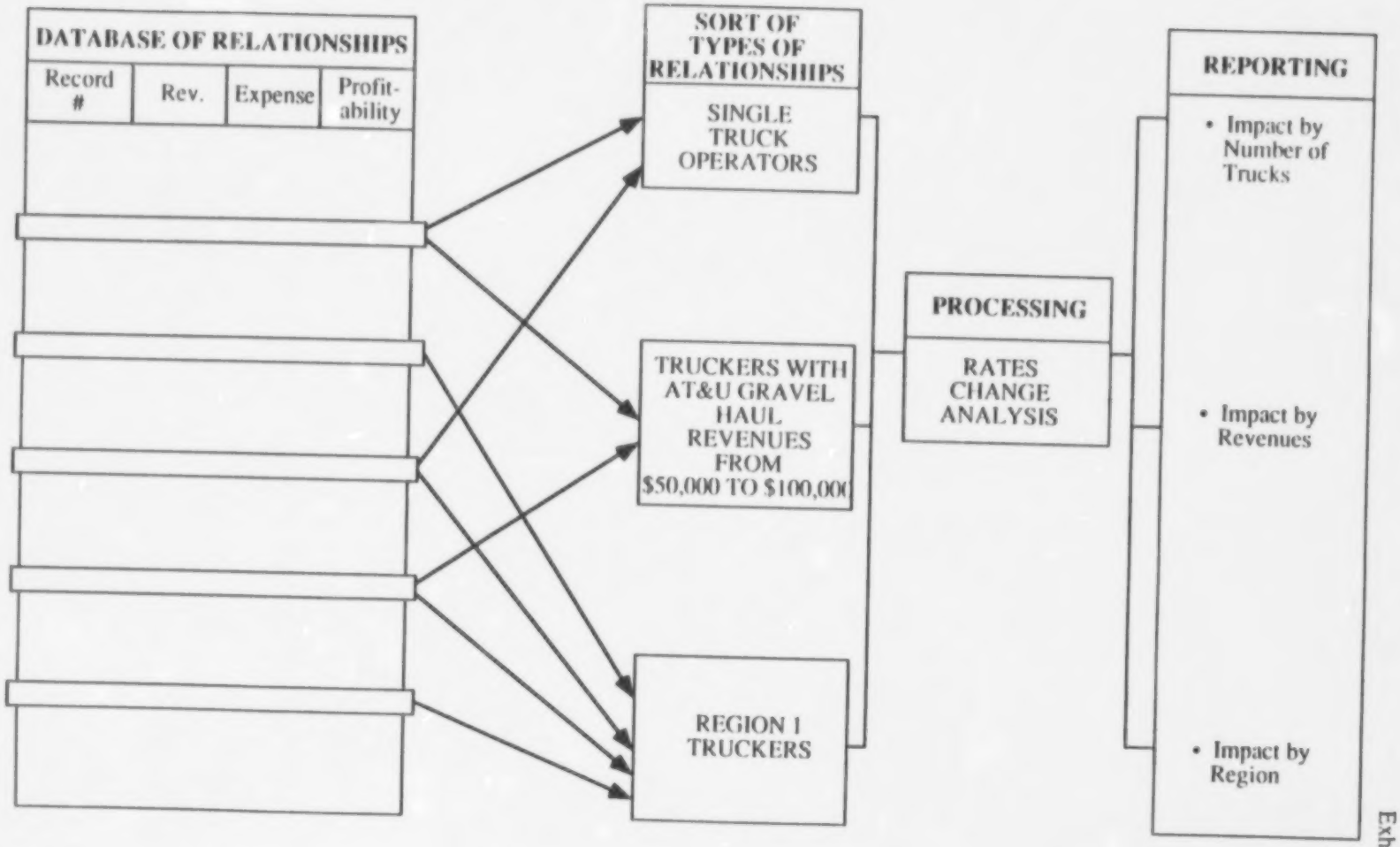


Exhibit 24

between variables can be identified, quantified and defined in such a way that they are applicable to the full range of possible values of the independent variables.

The relationships to be modelled in the Gravel Rates Analysis Model are defined from the results of the market and industry studies conducted as part of this assignment. The ability to interpret the results of these studies into relationships is therefore critical to accomplishing the objectives of the development of a financial model. Where clear relationships between dependent and independent variables are not identifiable from the studies, it is not possible to develop a dynamic model for those variables.

After consideration of the complexity of the issues, and the difficulty of developing and formalizing mathematical relationships between gravel haul rates, revenues and profitability for each of the many possible views necessary to the analysis, we determined that a unique alternative to the traditional financial model was required. Using the results of the industry survey conducted as part of this assignment, we employed the survey respondent's financial information to construct a data base in which every segment of the industry was represented. This data base was then used in place of mathematical formulas to represent the relationships required for modelling. In effect, the model can be considered to have over 400 "relationships" as part of its processing logic.

The model identifies representative revenue structures and revenue cost structures in the industry for each of the categories modelled by determining the averages for these respondents who meet the criteria being reported. The model can measure the impact of changes in AT&U Gravel Haul Rate policies by reviewing the AT&U gravel haul revenues reported by survey respondents (and only this revenue item, not other gravel hauling revenues) and calculating the revenues lost to these firms by percentage reductions from the current rates.

For example, in reporting the impact on the industry analyzed by the number of trucks, details on gravel and other revenues as well as summary earning statements are provided which are representative of the average carrier in each of the categories of:

- single truck owners;
- owners of 2 to 3 gravel trucks;
- owners of 4 to 6 gravel trucks;
- owners of 7 to 10 gravel trucks;
- 11 and more.

The model reports both what these structures will look like after the proposed rate change being modelled as well as the impact of the rate change on their gross revenues and their bottom line profitability . It reports the number of survey respondents upon which this data is determined and, using the statistical weightings applied to each individual respondent, extrapolates the total number of trucking firms in the industry likely to fall into this category. It then reports the total dollar value in this category in terms of changed revenues and changed profits.

DATA INPUTS

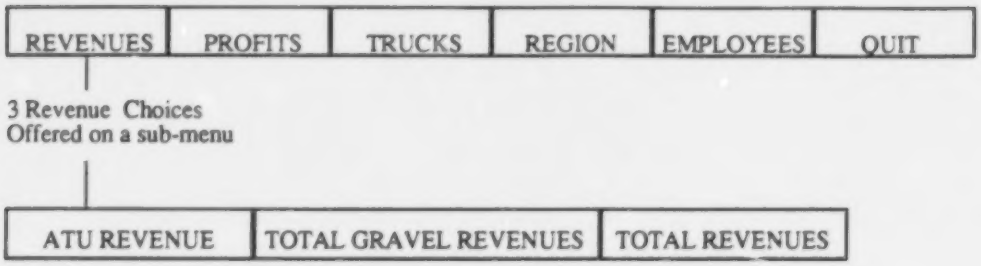
The model has been designed with the expectation that it will be available for use by a wide range of users with varying degrees of computer skills. To ensure its functionality the model has the following features:

- It has been developed using Lotus 123, a popular and easy to use applications spreadsheet program.
- Choices are menu driven and processed automatically through each step without need for programing inputs from the user.
- Instruction screens are provided at each point where data input is required or choices are offered.

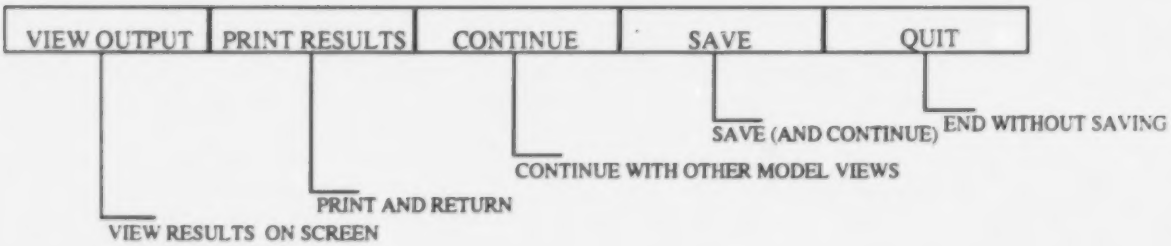
The primary data input requirement of the model is the percentage reduction (or increase) of the gravel haul rates from their current levels.

IMPACT ANALYSIS MODEL MENUS

MENU 1



MENU 2



The user has the opportunity to both input the rate change under consideration and the interval groupings for consolidation of results, i.e., sales of $50,000 to $100,000 or sales of $100,000 to $200,000 categories.

MODEL OPERATION

Detailed operating instructions are provided under separate cover. The following summarizes the sequence of the menu selection alternatives involved in operating the model.

Upon retrieval of the file ATU MODEL.WK1 into Lotus, a brief description of the model is followed by a request to enter the percentage change to be modelled from the current rates. This change is applied directly to the revenues reported by survey respondents for AT&U gravel haul only and does not affect any other revenues reported. It also changes variable costs reported. Two fundamental assumptions underlying this approach are:

- 100% of AT&U gravel haul revenues reported are based upon the minimum haul rates; and
- Variable costs vary directly with revenues.

Should these assumptions be considered inappropriate, minor programming modifications can be made to reflect any other relationships preferred.

Menu 1 shown in Exhibit 25 is then displayed to allow the user to select the appropriate analysis.

Selecting revenues or profits will result in a prompt asking the user to define the interval for grouping responses. Groupings for other selections are predetermined, although with minor programming changes can be modified to suit the user's requirements.

The model then processes the changes, taking approximately 90 seconds (operating on a Toshiba T3200 with an 80286 processor and 640k RAM - other configurations will yield different time requirements), and leading to a final menu (Menu 2 in Exhibit 25).

SECURITY

The following security features are provided to ensure the integrity of the database and the model programs:

- All worksheet cells are protected such that users cannot enter or change data or text;
- The area containing the confidential trucking survey data is hidden from view and cannot be accessed.
- The ability to interrupt processing and return control of the worksheet to the keyboard through 'escape' or 'break' commands is disabled.

Although no security features are infallible, these features should be adequate to prevent the average user from accessing and modifying the model and the database which provides the underlying logic for model processing. Instructions will be provided under separate cover to allow programmers the ability to make authorized changes under the direction of AT&U management.

BASE CASE AND IMPACT ASSESSMENTS OF EIGHT SCENARIOS

For the purposes of this report, the base case and eight scenarios were run on the model. (It should be noted that the total industry is represented in the model by the 418 survey respondents who provided complete information on revenues, expenses and gravel haul customers in 1988. The representativeness of this sub-sample is discussed in Appendix 3).

The base case represents the status quo for the industry. The scenarios postulate increases and decreases in the minimum haul rate of 10%, 20%, 30% and 40%. *It is assumed that elimination of the minimum haul rate will result in a decline from AT&U current rates to existing competitive market rates applied*

elsewhere in the industry and that these competitive market rates are effectively not more than 40% less than the current AT&U minimum haul rate. ***Thus elimination of the minimum haul rate will have a maximum impact equivalent to a 40% rate reduction.***

Output from the model for the base case is shown in Exhibit 26 on the following pages, analyzed for (a) three levels of revenues (total, total gravel haul and AT&U gravel haul), (b) profits, (c) number of dump trucks owned (including small independents with 0-3 trucks and larger operators with more than 3 trucks, as additional sub-totals), (d) number of employees, and (e) AT&U Region (including additional sub-totals for Edmonton and Calgary).

Output from the model for the eight scenarios revealed that increases and decreases are mirror images of each other (e.g., a 10% increase in the minimum haul rate results in an average increase in revenues of $4,200 for each operator, while a 10% decrease results in a decline in average operator revenues of $4,200). Consequently, the discussion in this section of the report generally refers to "change". Output for the 10% to 40% reduction is shown in Appendix 3.

RATE CHANGE IMPACTS ON AT&U AND THE TOTAL INDUSTRY

AT&U COST AND INDUSTRY VALUE IMPACTS

Exhibit 27 graphically depicts the impact on the value of the industry of changes to the minimum haul rate. As may be seen, impacts range in value from $5.6 million for a 10% rate change to $22.3 million at the 40% level. In effect, AT&U would save $22.3 million if rates declined by 40% - and of course, there would be a similar loss of value to the gravel trucking industry as a whole. This represents about 5% of AT&U's $400 million budget for construction and improvement of roads.

If the $22.3 million was used to build more roads, approximately 56 kilometers of additional paved rural two-lane primary highway, or 86 kilometers of paved secondary highway, could be built each year. If this new construction took place, about 12% of the cost would be incurred by gravel hauling. The industry would therefore regain $2.7 million of the $22.3 million lost, bringing the real decline in value of the gravel trucking industry to $19.6 million.

Exhibit 27 also shows the percentage change in value of AT&U revenues, gravel haul revenues and total revenues from all sources that will occur as a result of the selected rate changes. For example, if there was a rate reduction of 40%, AT&U revenues received would, by definition, decline by 40%, total gravel revenues received by 15% and total revenues received from all sources would decline by under 5% (assuming no investment in further road building).

INDUSTRY PROFITABILITY IMPACTS

It should be noted that it is likely that the balance which results when operating costs are deducted from revenues represents both company profits and, for small operators, their earnings/salaries. Refer to Appendix 1, Table 7 for a discussion of this problem.

The graph in Exhibit 28 focuses on gross total profits/earnings in the industry. Changes to the minimum haul rate, ranging from 10% to 40%, would have an impact on current industry profitability (estimated at $95 million) of between $2.6 million and $10.4 million. This represents between 2.8% and 11.0% of profits.

On an industry-wide basis, profits/earnings comprise 20% of total revenues. In contrast, approximately 46% of the expenditures which would be "saved" by AT&U if the minimum haul rate were reduced, is made up of profits/earnings in the industry (e.g., $10.4 million profits as a percentage of the $22.3 million in revenues which would be "saved" under a 40% scenario). This suggests that operators are making higher profits on their revenues from AT&U gravel haul than from other sources.

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: REGION
ANALYSIS OF RATE REDUCTION OF: 0%

REGION	1	2	3	4	5	6	EDM 7	CAL 8	TOTAL ALL
GRAVEL SALES									
ATU	65,549	22,866	60,775	34,916	34,235	50,417	69,347	24,345	42,881
OTHER GOV'T	26,628	4,657	7,987	747	5,114	3,808	10,613	3,740	6,115
MUNICIPAL	13,894	24,825	48,605	14,782	14,433	9,500	21,384	34,672	18,913
PRIVATE	87,206	30,584	56,121	20,353	47,051	45,120	24,637	34,772	45,224
TOTAL GRAVEL	193,277	82,932	173,488	70,797	100,834	108,845	125,980	97,530	112,333
OTHER REVENUE	93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL REVENUE	286,676	232,449	643,909	162,187	334,064	403,907	653,896	135,631	350,622
BASE CASE TOTAL REV	286,676	232,449	643,909	162,188	334,064	403,907	653,896	135,631	350,622
RATE CHANGE IMPACT PER CARRIER	(0)	(0)	(0)	(0)	0	(0)	0	0	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(0)	(0)	(0)	(1)	1	(0)	1	0	(0)
AVG NUMBER OF GRAVEL TRUCKS	4	3	3	2	2	2	2	4	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	54,921	28,506	60,839	30,893	61,942	51,173	63,685	27,868	49,536
NUMBER OF RESPONDENTS	34	76	52	48	145	63	57	42	418
WEIGHTED FOR SAMPLE POPULATION	95	161	167	170	442	292	175	78	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:REGION

0	1	2	3	4	5	6	7	8	TOTAL ALL
REVENUES:									
GRAVEL HAUL	193,277	82,932	173,488	70,797	100,834	108,845	125,980	97,530	112,333
OTHER HAUL	93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL	286,676	232,449	643,909	162,187	334,064	403,907	653,896	135,631	350,622
VARIABLE COSTS:									
ATU GRAVEL HAUL	29,625	7,850	46,739	14,744	21,533	19,919	47,477	7,931	22,395
OTHER GRAVEL HAUL	75,327	21,947	79,174	13,723	29,254	33,233	35,677	29,483	36,830
OTHER HAUL	52,112	68,034	339,423	44,297	170,615	113,069	397,884	15,969	142,048
TOTAL	157,063	97,831	465,336	72,763	221,402	166,220	481,038	53,383	201,273
FIXED COSTS	67,799	69,647	108,673	36,195	74,704	97,075	148,065	33,176	77,852
TOTAL OPERATING COSTS	224,863	167,478	574,009	108,959	296,106	263,295	629,103	86,559	279,126
EARNINGS*	61,814	64,970	69,900	53,229	37,958	140,612	24,793	49,072	71,496
PERCENT OF REVENUES	22	28	11	33	11	35	4	36	20
BASE CASE EARNINGS	61,814	64,970	69,900	53,229	37,958	140,612	24,793	49,072	71,496
IMPACT PER TRUCKER	(0)	(0)	(0)	(0)	0	(0)	0	0	(0)
TOTAL INDUSTRY IMPACT	(0)	(0)	(0)	(1)	1	(0)	1	0	(0)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF MODELLED GRAVEL HAUL TRUCKS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: TOTAL REVENUES
ANALYSIS OF RATE REDUCTION OF: 0%

SIZE RANGE: MORE THAN	0	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	TOTAL ALL
MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000		
GRAVEL SALES										
ATU	5,877	11,867	23,403	21,438	36,652	12,335	39,242	47,833	185,818	42,001
OTHER GOV T	468	1,578	3,801	2,927	3,807	0	15,159	9,567	26,313	6,115
MUNICIPAL	4,195	7,518	12,099	14,565	16,440	15,457	11,334	9,000	70,376	18,913
PRIVATE	4,690	9,575	19,497	28,869	20,714	38,828	54,432	119,266	286,379	45,224
TOTAL GRAVEL	14,430	29,738	58,800	67,799	77,613	66,619	120,167	185,666	488,887	112,333
OTHER REVENUE	7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL REVENUE	21,839	45,688	75,495	107,564	141,255	169,655	198,889	226,295	1,977,700	350,622
BASE CASE TOTAL REV	21,839	45,688	75,495	107,564	141,255	169,655	198,889	226,295	1,977,700	350,622
RATE CHANGE IMPACT PER CARRIER	0	0	(0)	0	0	(0)	0	0	(0)	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	0	0	(0)	0	0	(0)	0	0	(0)	(0)
AVG NUMBER OF GRAVEL TRUCKS	1	1	2	2	3	3	3	5	6	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	12,640	24,268	36,100	34,636	30,963	25,231	35,641	41,259	81,572	49,536
NUMBER OF RESPONDENTS	34	142	85	44	23	11	16	2	61	418
WEIGHTED FOR SAMPLE POPULATION	104	449	269	146	80	34	48	6	191	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL REVENUES

MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	240,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	14,430	29,738	58,800	67,799	77,613	66,619	120,167	185,666	488,887	112,333
OTHER HAUL	7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL	21,839	45,688	75,495	107,564	141,255	169,655	198,889	226,295	1,977,760	350,622
VARIABLE COSTS:										
ATU GRAVEL HAUL	1,636	3,878	10,327	8,322	14,514	6,247	19,165	33,869	111,538	22,395
OTHER GRAVEL HAUL	3,421	7,444	14,326	16,624	16,283	20,671	46,366	99,963	176,714	36,830
OTHER HAUL	4,101	6,872	7,228	18,314	28,264	42,343	38,394	29,558	914,256	142,048
TOTAL	9,158	17,345	31,881	43,259	59,061	77,261	103,926	163,390	1,202,508	201,273
FIXED COSTS	5,750	11,933	17,818	31,259	42,353	47,819	65,632	54,463	415,638	77,852
TOTAL OPERATING COSTS	14,908	29,277	49,700	74,518	101,414	124,200	169,557	217,853	1,618,146	279,126
EARNINGS*	6,931	16,412	25,796	33,046	39,841	45,375	29,331	8,442	359,634	71,496
PERCENT OF REVENUES	32	36	34	31	28	27	15	4	18	20
BASE CASE EARNINGS	6,931	16,412	25,796	33,046	39,841	45,375	29,331	8,442	359,634	71,496
IMPACT PER TRUCKER	0	0	(0)	0	0	(0)	(0)	(0)	(0)	(0)
TOTAL INDUSTRY IMPACT	0	0	(0)	0	0	(0)	(0)	(0)	(0)	(0)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

Exhibit 26
Page 2 of 7

ANALYSIS OF ALBERTA GRAVEL HAUL INDUSTRY

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: TOTAL GRAVEL HAUL REVENUES
ANALYSIS OF RATE REDUCTION OF: 8%

SORT RANGE:	MORE THAN	0	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	TOTAL ALL
	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000		
GRAVEL SALES											
ATU		3,464	7,908	14,922	21,667	28,840	33,147	41,220	42,925	219,321	42,081
OTHER GOV'T		303	991	1,934	3,364	1,462	6,833	1,438	9,208	34,808	6,115
MUNICIPAL		1,658	4,691	6,979	12,459	14,325	21,874	22,893	22,557	86,465	18,913
PRIVATE		2,987	10,330	13,669	15,550	23,948	24,463	34,640	41,631	263,676	45,224
TOTAL GRAVEL		8,404	23,919	37,504	53,040	68,567	84,717	99,400	116,401	604,220	112,333
OTHER REVENUE		41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,298
TOTAL REVENUE		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
BASE CASE TOTAL REV		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
RATE CHANGE IMPACT PER CARRIER		0	0	0	0	0	0	(0)	(0)	(0)	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		0	0	0	0	0	0	(0)	(0)	(0)	(0)
AVG NUMBER OF GRAVEL TRUCKS		1	2	1	2	2	2	4	3	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		6,969	15,693	26,421	34,674	43,073	38,525	28,176	34,905	98,410	49,536
NUMBER OF RESPONDENTS		67	72	63	63	44	23	16	14	56	418
WEIGHTED FOR SAMPLE POPULATION		289	227	202	211	140	79	53	46	159	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL GRAVEL HAUL REVENUES

	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	120,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		8,404	23,919	37,504	53,040	68,567	84,717	99,400	116,401	604,220	112,333
OTHER HAUL		41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,298
TOTAL		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
VARIABLE COSTS:											
ATU GRAVEL HAUL		1,387	2,351	7,191	8,825	10,391	13,259	14,464	18,942	134,687	22,395
OTHER GRAVEL HAUL		1,866	5,654	9,763	14,280	16,127	20,319	25,881	25,414	224,960	36,838
OTHER HAUL		19,456	14,847	33,799	30,896	69,138	7,742	44,121	117,356	942,631	142,848
TOTAL		22,709	22,852	50,753	53,209	95,655	41,321	84,466	161,712	1,302,279	201,273
FIXED COSTS		12,031	19,664	27,214	34,649	64,236	32,281	43,086	205,874	377,965	77,852
TOTAL OPERATING COSTS		34,739	41,716	77,967	87,858	159,892	73,601	128,351	367,585	1,680,243	279,126
EARNINGS*		15,049	21,059	22,346	124,838	36,474	28,057	207,083	63,369	218,938	71,496
PERCENT OF REVENUES		30	34	22	59	19	28	62	15	12	20
BASE CASE EARNINGS		15,049	21,059	22,346	124,838	36,474	28,057	207,083	63,369	218,938	71,496
IMPACT PER TRUCKER		0	0	0	0	0	0	(0)	(0)	(0)	(0)
TOTAL INDUSTRY IMPACT		0	0	0	0	0	0	(0)	(0)	(0)	(0)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF MEMBER GRAVEL HAUL CARRIERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: ATU GRAVEL HAUL REVENUES

ANALYSIS OF RATE REDUCTION OF: 0%

SORT RANGE:	MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
	NOT	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES											
ATU		0	4,322	15,075	25,532	35,173	45,529	55,420	65,323	355,288	42,001
OTHER GOV'T		3,318	2,175	4,240	1,934	12,983	1,302	3,962	4,500	37,471	6,115
MUNICIPAL		17,691	8,702	9,244	15,221	12,512	3,206	4,445	13,804	110,150	18,913
PRIVATE		50,097	25,985	28,143	22,932	18,210	9,300	9,665	30,935	237,130	45,224
TOTAL GRAVEL		71,106	41,183	56,701	65,618	78,878	59,338	73,492	114,642	740,054	112,333
OTHER REVENUE		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL REVENUE		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,097	2,460,723	350,622
BASE CASE TOTAL REV		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,097	2,460,723	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(0)	0	(0)	0	0	0	(0)	0	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(0)	0	(0)	0	0	0	(0)	0	(0)
AVG NUMBER OF GRAVEL TRUCKS		2	2	2	2	2	2	2	2	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,833	26,600	33,482	29,862	31,900	36,242	44,739	46,082	99,655	49,536
NUMBER OF RESPONDENTS		91	133	56	36	22	19	16	10	35	410
WEIGHTED FOR SAMPLE POPULATION		263	419	173	123	77	76	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:ATU GRAVEL HAUL REVENUES

	MAT	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		71,106	41,183	56,701	65,618	78,878	59,338	73,492	114,642	740,054	112,333
OTHER HAUL		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,097	2,460,723	350,622
VARIABLE COSTS:											
ATU GRAVEL HAUL		0	1,762	5,666	10,107	18,165	18,913	22,884	23,862	210,865	22,395
OTHER GRAVEL HAUL		43,929	14,301	20,494	17,953	21,556	7,162	8,813	24,204	213,452	36,830
OTHER HAUL		121,017	37,934	26,333	25,823	67,467	34,672	19,075	12,589	1,196,557	142,848
TOTAL		164,946	53,997	52,494	53,963	107,188	60,747	49,972	60,655	1,620,874	201,273
FIXED COSTS		61,661	40,798	24,525	45,157	39,101	39,593	27,619	47,457	492,927	77,852
TOTAL OPERATING COSTS		226,607	94,795	77,019	99,120	146,289	100,340	77,590	108,112	2,113,800	279,126
EARNINGS*		31,225	28,347	30,410	30,522	49,389	298,793	34,091	37,985	346,923	71,496
PERCENT OF REVENUES		12	23	28	24	25	75	31	26	14	20
BASE CASE EARNINGS		31,225	28,347	30,410	30,522	49,389	298,793	34,091	37,985	346,923	71,496
IMPACT PER TRUCKER		(0)	(0)	0	(0)	0	0	0	0	0	(0)
TOTAL INDUSTRY IMPACT		(0)	(0)	0	(0)	0	0	0	0	0	(0)

* INCLUDES NON-CONTRACT PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF WAGES

Exhibit 26
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[illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: PROFITABILITY OF OPERATIONS
ANALYSIS OF RATE REDUCTION OF: 0%

PROFITABILITY: FROM	LESS THAN	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	TOTAL ALL
TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000		
GRAVEL SALES										
ATU	93,322	14,447	20,794	26,896	26,987	100,984	12,843	30,000	265,916	42,081
OTHER GOV'T	21,177	2,422	1,333	6,155	5,546	13,042	0	220,000	14,566	6,115
MUNICIPAL	23,240	8,640	12,227	16,447	13,912	16,449	516	19,000	129,410	18,913
PRIVATE	66,388	15,609	25,731	32,566	53,479	29,246	18,213	95,000	347,770	45,224
TOTAL GRAVEL	204,136	41,118	60,076	82,064	99,844	159,721	30,772	380,000	757,670	112,333
OTHER REVENUE	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL REVENUE	818,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
BASE CASE TOTAL REV	818,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
RATE CHANGE IMPACT PER CARRIER	(0)	0	(0)	0	0	(0)	0	0	(0)	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(0)	0	(0)	0	0	(0)	0	0	(1)	(0)
AVG NUMBER OF GRAVEL TRUCKS	3	2	2	2	3	5	2	4	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	74,828	26,966	33,627	37,215	33,206	30,489	13,243	95,000	104,793	49,536
NUMBER OF RESPONDENTS	45	170	96	57	12	11	3	1	23	418
WEIGHTED FOR SAMPLE POPULATION	138	529	314	184	40	35	12	3	72	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: PROFITABILITY OF OPERATIONS

TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	140,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	204,136	41,118	60,076	82,064	99,844	159,721	30,772	380,000	757,670	112,333
OTHER HAUL	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL	818,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
VARIABLE COSTS:										
ATU GRAVEL HAUL	66,380	7,217	7,591	9,391	6,882	57,264	3,023	16,981	143,770	22,395
OTHER GRAVEL HAUL	97,310	14,084	15,168	22,664	18,181	28,781	4,345	152,831	248,040	36,838
OTHER HAUL	519,263	12,420	22,759	42,502	9,578	159,162	73,512	8,937	1,238,184	142,048
TOTAL	682,952	33,721	45,518	74,557	26,642	245,127	81,680	178,750	1,621,914	201,273
FIXED COSTS	172,212	19,279	29,807	36,686	73,623	143,017	80,350	96,250	616,835	77,852
TOTAL OPERATING COSTS	855,164	53,000	75,317	111,243	100,265	388,143	162,031	275,000	2,238,750	279,126
EARNINGS*	(37,062)	12,797	29,657	51,047	75,199	97,706	111,282	125,000	928,202	71,496
PERCENT OF REVENUES	(5)	19	28	31	43	20	41	31	29	20
BASE CASE EARNINGS	(37,062)	12,797	29,657	51,047	75,199	97,706	111,282	125,000	928,202	71,496
IMPACT PER TRUCKER	(0)	0	(0)	0	0	(0)	0	0	(0)	(0)
TOTAL INDUSTRY IMPACT	(0)	0	(0)	0	0	(0)	0	0	(1)	(0)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
AVAILABLE TO SELF OWNERS TO DRAW IN LIEU OF SALARY

Exhibit 26
Page 5 of 7

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF GRAVEL TRUCKS
ANALYSIS OF RATE REDUCTION OF: 0%

NUMBER OF TRUCKS:	MORE THAN	0	1	3	6	10	0	3	
	UP TO	1	3	6	10		3		TOTAL ALL
GRAVEL SALES									
	ATU	15,063	36,314	53,277	111,757	847,155	21,576	162,493	42,081
	OTHER GOV T	3,072	7,818	12,075	9,220	46,798	4,499	15,571	6,115
	MUNICIPAL	8,726	16,022	15,092	63,323	341,100	10,963	65,674	18,913
	PRIVATE	15,019	33,628	60,792	368,833	524,684	20,722	189,434	45,224
	TOTAL GRAVEL	41,840	93,781	141,236	553,133	1,759,737	57,759	433,172	112,333
OTHER REVENUE		47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,290
TOTAL REVENUE		89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
BASE CASE TOTAL REV		89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	0	(0)	(0)	0	0	(0)	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	0	(0)	(2)	1	0	(1)	(0)
AVG NUMBER OF GRAVEL TRUCKS		1	2	5	8	21	1	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		41,840	40,393	36,948	67,644	85,152	41,107	58,908	49,536
NUMBER OF RESPONDENTS		243	109	38	16	11	352	65	418
WEIGHTED FOR SAMPLE POPULATION		785	347	124	46	23	1,132	193	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF GRAVEL TRUCKS

UP TO	1	3	6	10		3	0	TOTAL ALL
REVENUES:								
GRAVEL HAUL	41,840	93,781	141,236	553,133	1,759,737	57,759	433,172	112,333
OTHER HAUL	47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,290
TOTAL	89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
VARIABLE COSTS:								
ATU GRAVEL HAUL	5,478	20,332	23,707	48,659	568,714	10,030	95,089	22,395
OTHER GRAVEL HAUL	11,483	32,350	45,303	196,317	605,609	17,879	148,361	36,830
OTHER HAUL	21,266	139,[illegible]	253,392	310,085	3,350,040	57,652	638,833	142,048
TOTAL	38,227	192,669	322,402	555,061	4,524,364	85,561	882,282	201,273
FIXED COSTS	27,652	84,925	164,747	148,258	1,074,732	45,205	270,167	77,852
TOTAL OPERATING COSTS	65,879	277,594	487,149	703,319	5,599,096	130,766	1,152,449	279,126
EARNINGS*	23,719	99,679	155,594	303,125	364,432	47,000	215,603	71,496
PERCENT OF REVENUES	26	26	24	30	8	26	16	20
BASE CASE EARNINGS	23,719	99,679	155,594	303,125	364,432	47,000	215,603	71,496
IMPACT PER TRUCKER	(0)	0	(0)	(0)	0	0	(0)	(0)
TOTAL INDUSTRY IMPACT	(0)	0	(0)	(2)	1	0	(1)	(0)

* INCLUDES [illegible]
AVAILABLE TO ADD [illegible]

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF EMPLOYEES
ANALYSIS OF RATE REDUCTION OF: 0%

NUMBER OF EMPLOYEES	MORE THAN	0	1	3	6	10	20	
	MAX	1	3	6	10	20		TOTAL ALL
GRAVEL SALES								
	ATU	14,728	20,917	33,259	108,435	171,832	708,979	42,081
	OTHER GOV'T	1,528	3,249	23,530	7,924	15,094	81,200	6,115
	MUNICIPAL	9,286	11,751	18,712	29,840	47,988	299,723	18,913
	PRIVATE	14,132	27,446	63,227	62,399	332,052	580,078	45,224
	TOTAL GRAVEL	39,673	63,362	138,727	208,606	566,966	1,669,980	112,333
OTHER REVENUE		19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL REVENUE		59,538	108,080	280,633	589,659	2,049,590	8,615,113	350,622
BASE CASE TOTAL REV		59,538	108,080	280,633	589,659	2,049,590	8,615,113	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(0)	(0)	0	(0)	0	(0)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(0)	(0)	0	(0)	0	(0)
AVG NUMBER OF GRAVEL TRUCKS		1	2	4	6	6	13	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		33,897	31,719	38,576	36,074	100,056	124,169	49,536
NUMBER OF RESPONDENTS		208	129	33	25	11	12	418
WEIGHTED FOR SAMPLE POPULATION		668	411	102	81	37	26	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF EMPLOYEES

	MAX	1	3	6	10	20	0	TOTAL ALL
REVENUES:								
	GRAVEL HAUL	39,673	63,362	138,727	208,606	566,966	1,669,980	112,333
	OTHER HAUL	19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
	TOTAL	59,538	108,080	280,633	589,659	2,049,590	8,615,113	350,622
VARIABLE COSTS:								
	ATU GRAVEL HAUL	5,397	9,212	18,247	39,956	76,238	543,060	22,395
	OTHER GRAVEL HAUL	9,448	19,366	62,594	34,242	106,735	810,679	36,830
	OTHER HAUL	7,640	22,140	76,592	141,152	789,508	4,746,128	142,048
	TOTAL	22,485	50,718	157,433	215,350	972,481	6,099,868	201,273
FIXED COSTS		15,305	29,553	86,457	154,666	510,269	1,529,362	77,852
TOTAL OPERATING COSTS		37,790	80,271	243,890	370,016	1,482,750	7,629,230	279,126
EARNINGS*		21,748	27,810	36,743	219,643	566,840	985,884	71,496
PERCENT OF REVENUES		37	26	13	37	28	11	20
BASE CASE EARNINGS		21,748	27,810	36,743	219,643	566,840	985,884	71,496
IMPACT PER TRUCKER		(0)	(0)	(0)	0	(0)	0	(0)
TOTAL INDUSTRY IMPACT		(0)	(0)	(0)	0	(0)	0	(0)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

Exhibit 27

IMPACT OF CHANGE IN THE MIN. HAUL RATE ON TOTAL INDUSTRY REVENUES

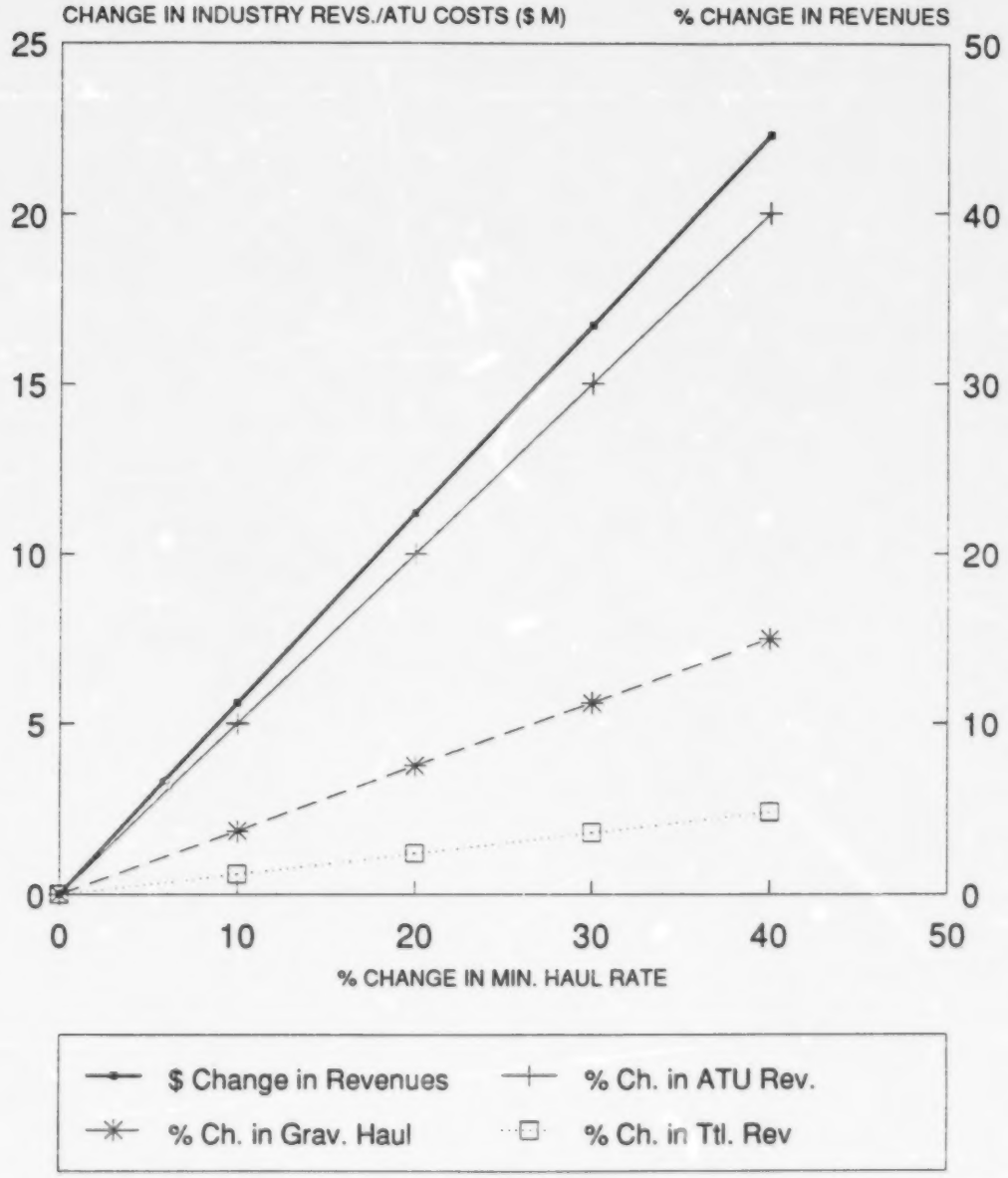


Exhibit 28

IMPACT OF CHANGE IN THE MIN. HAUL RATE ON TOTAL INDUSTRY PROFITS

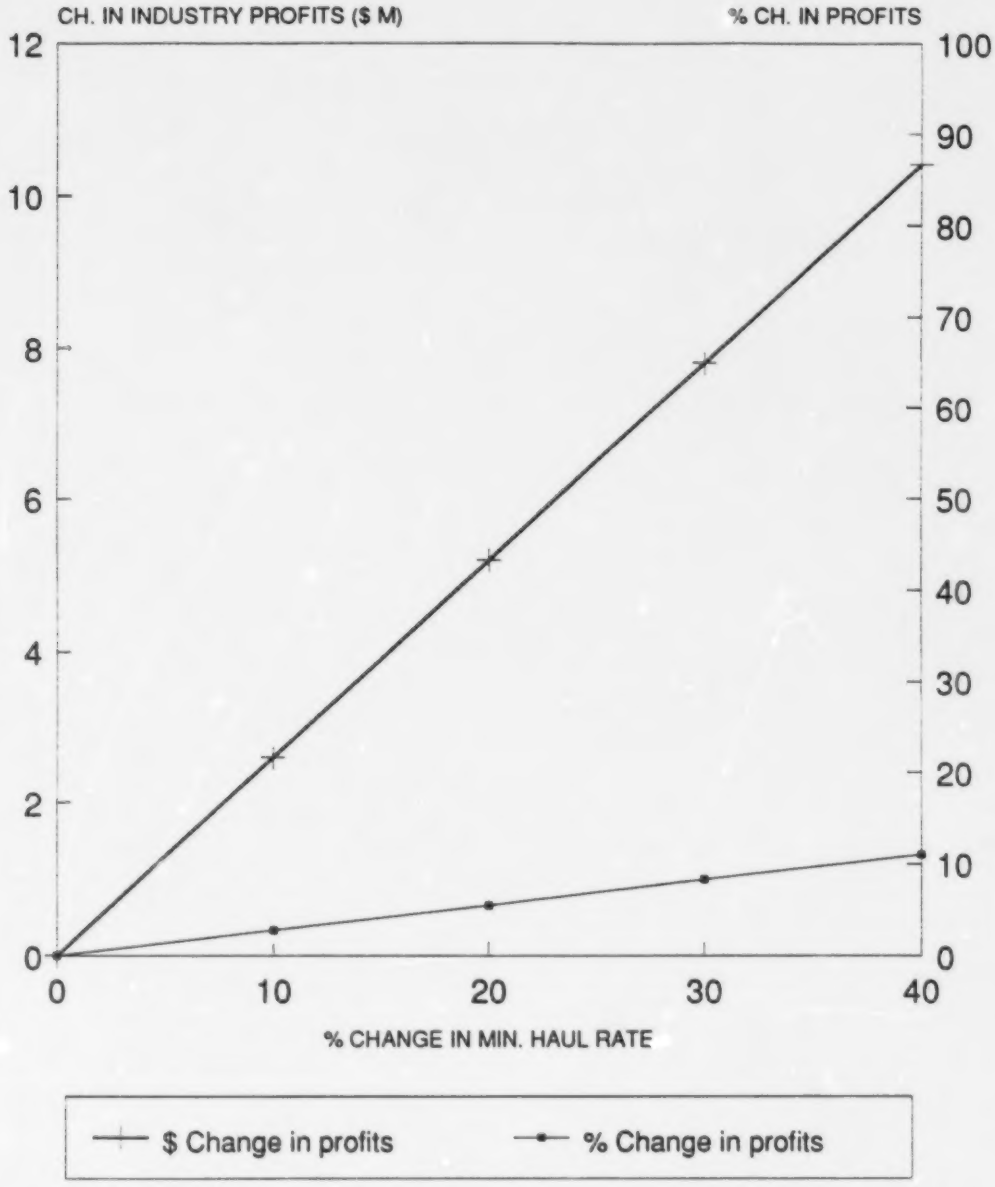
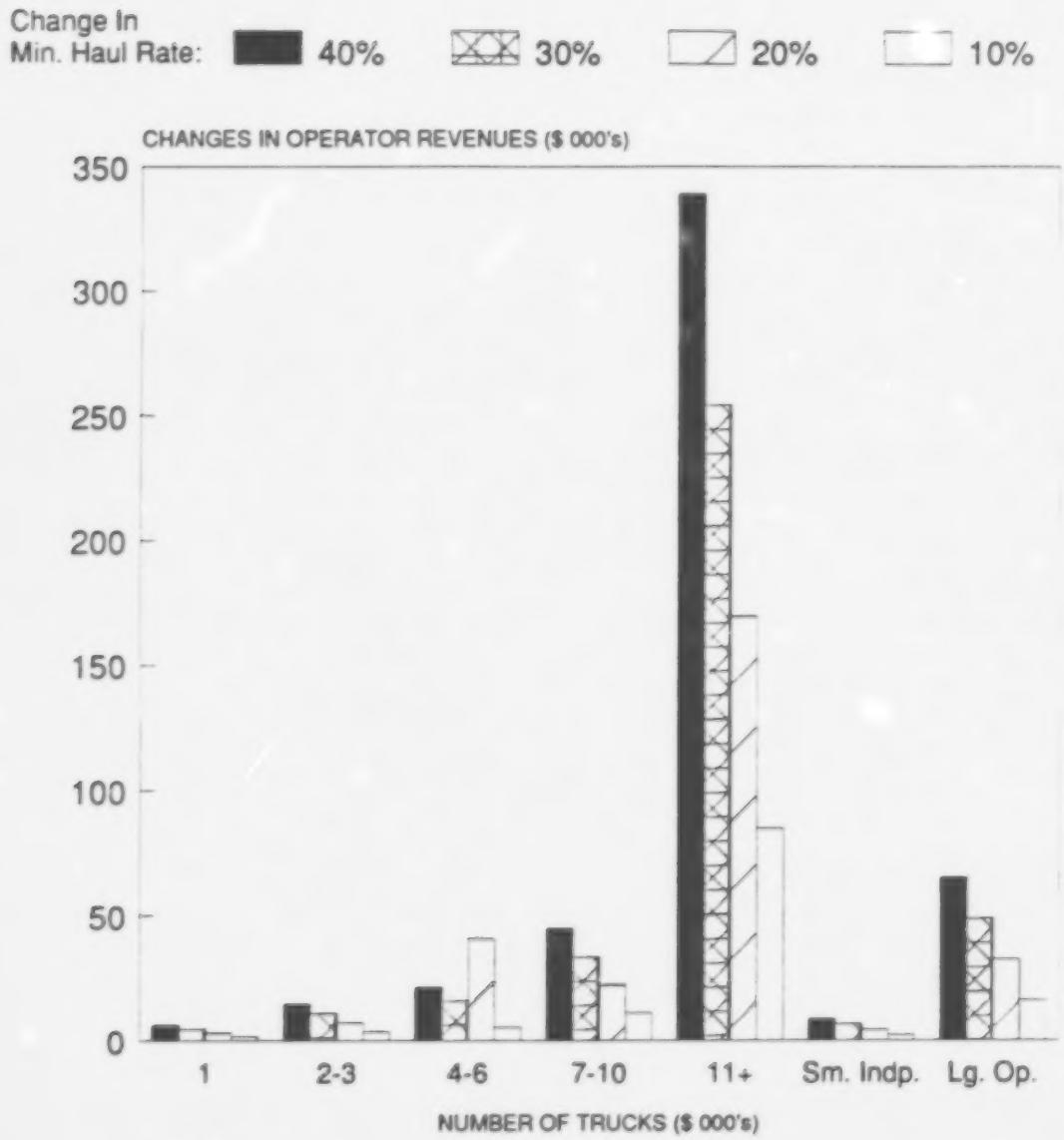


Exhibit 29

RATE CHANGE IMPACT ON AVERAGE OPERATOR REVENUES - BY NUMBER OF TRUCKS



Industry:	785	347	124	46	23	1132	193
Sample:	243	109	38	16	11	352	65

IMPACT ON NUMBER OF TRUCKS

The loss of $22.3 million to the gravel haul industry would result in the loss of 450 dump trucks (at an average of $49,500 in gravel revenues per truck), approximately 15% of the trucks currently in the gravel haul industry.

This estimate was independently corroborated by responses to the question "Would reduction or elimination of any of these requirements result in a change in the equipment you operate? In what way?" Calculation of the number of trucks owned by survey respondents whose answers in response to this question were: "reduce equipment/eliminate gravel equipment/wouldn't haul gravel", "would get out of business/get out of trucking/ sell equipment/trucks" or "do other work/ another business", gave a similar estimate of 447 trucks.

If the $22.3 million was re-invested in road construction, the $2.7 million which would accrue to the gravel industry would support 54 trucks (at average revenue per truck levels), reducing the loss to approximately 400 trucks.

In the survey, 70 operators had indicated that removal of any of the contract conditions would provide the impetus for them to "buy more trucks/add bigger equipment/expand". Depending on the magnitude of the expansion, the number of trucks in the industry would then be reduced by something less than 450. If each of these operators purchased only one truck, the loss would be 380. If each of these operators doubled their existing fleets, the loss would only be 210 trucks.

RATE CHANGE IMPACTS BY SECTOR AND NUMBER OF TRUCKS OWNED

REVENUE IMPACTS

The percentage impacts on industry revenues shown earlier in Exhibit 27 are also true for both the average small independent operator and for larger operators. However, as may be seen in Exhibit 29, the dollar value is considerably different for both of these groups, with small independents experiencing a change between $2,200 and $8,600 (on average base revenues of $178,000), while larger operator impacts are between $16,200 and $65,000 (on average base revenues of $1,368,000) for the 10% to 40% scenarios.

PROFITABILITY IMPACTS

Exhibit 30 displays the changes in profitability which will result if the minimum haul rate is changed by a factor between 10% and 40%. While small independents will experience a change in profits/earnings between $1,200 and $4,600, the impact on the average larger operator is from $6,700 to $27,000 and is especially significant for companies with 11 or more dump trucks. This group stands to gain or lose between 7.6% and 30.1% of their profits with a change in minimum haul rate (refer Exhibit 31). It is no longer a matter for conjecture why larger operators stated higher intentions to protest should the minimum haul rate be eliminated!

The next most strongly impacted group is the one-truck operator. While the average dollar value of change among such operators will range from $1,000 to $3,800, this represents between 4.0% and 16.2% of their profits/earnings - a lower impact than among the very large operators, but twice the impact of companies with between two and ten trucks. The one-truck operator, whose average total revenue is $89,600, with before tax profits/earnings of $23,700, could see profits/ earnings erode to $19,900 if the rate were reduced by 40%.

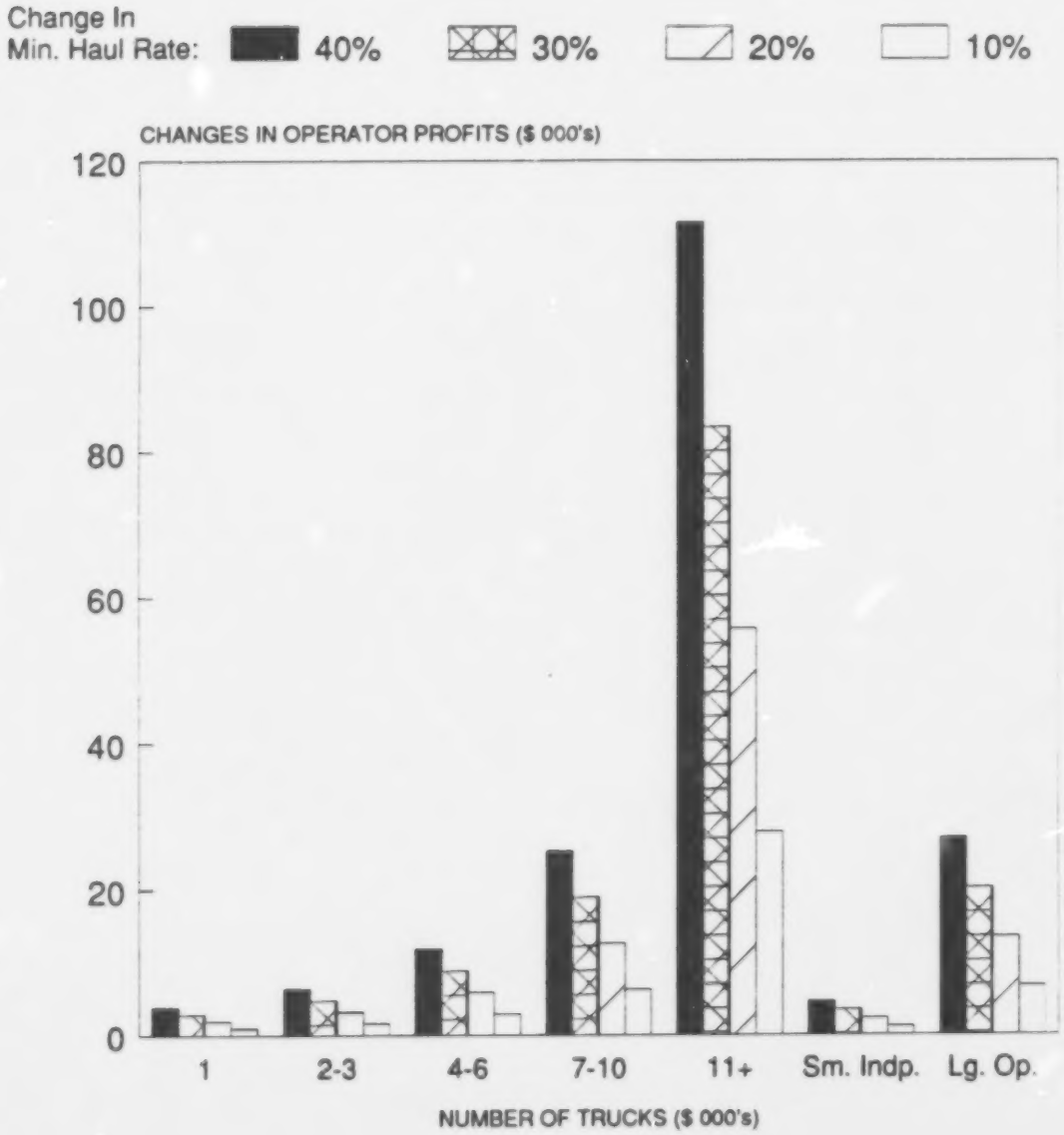
Since revenues will also be changed as a result of an AT&U rate change, it is useful to examine Exhibit 32, which depicts profits/earnings as a percent of total revenues. A number of observations can be made here:

- small independents, as expected, report higher net earnings at 26.4% than larger operators at 15.8%.

- operators with 11 or more trucks show the lowest profit margins and, at 6.1% (base case), declining potentially to 4.5% (-40%

Exhibit 30

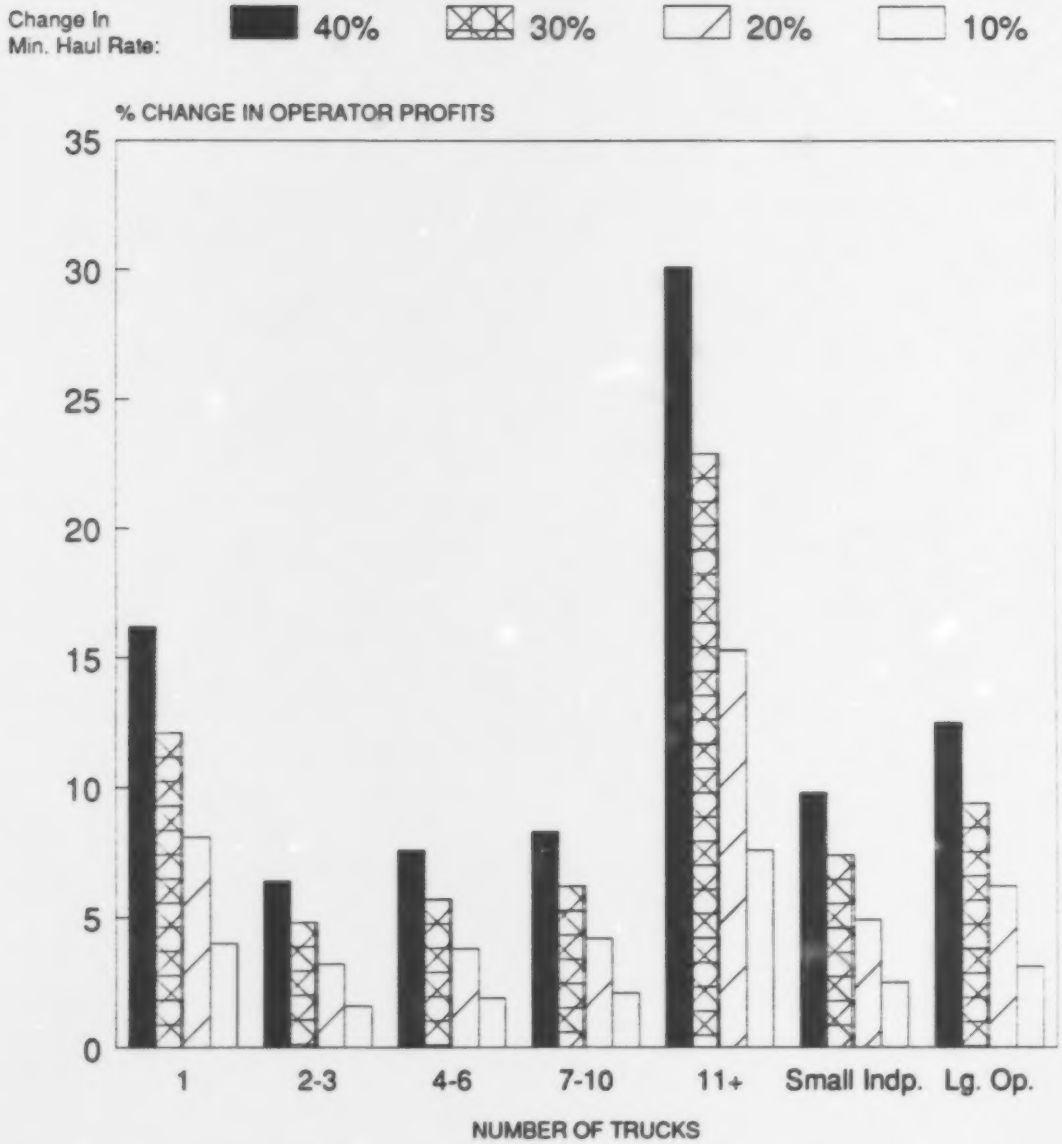
RATE CHANGE IMPACT ON AVERAGE OPERATOR PROFITS - BY NUMBER OF TRUCKS



Industry:	785	347	124	46	23	1132	193
Sample:	243	109	38	16	11	352	65

Exhibit 31

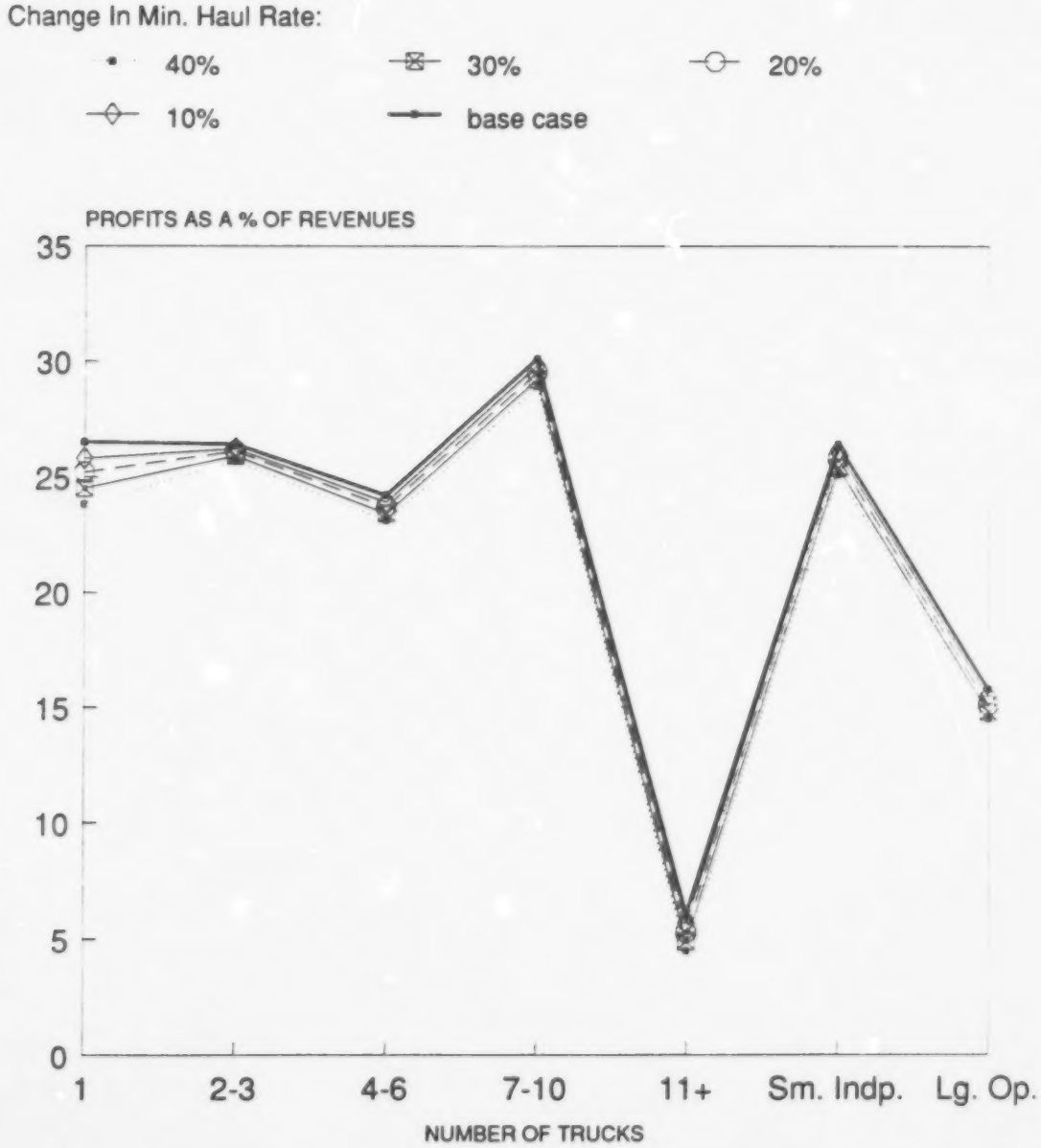
RATE IMPACTS: % CHANGE IN OPERATOR PROFITS - BY NUMBER OF TRUCKS



	1	2-3	4-6	7-10	11+	Small Indp.	Lg. Op.
Industry	785	347	124	46	23	1132	193
Sample	243	109	38	16	11	352	65

Exhibit 32

RATE IMPACTS ON PROFITS AS A PERCENT OF TOTAL REVENUES - BY NUMBER OF TRUCKS



Industry:	785	347	124	46	23	1132	193
Sample:	243	109	38	16	11	352	65

scenario) they are the group at greatest risk (assuming no change in business practices). It should be noted, however, that these results are strongly influenced by the inclusion of a few of the very highest revenue companies in this category. Other large fleet owners in this group show average profitability levels.

- profit margins, expressed in percentage terms, differ little between the base case and the most extreme (40%) scenario.

IMPACT ON THE NUMBER OF TRUCKS

Approximately half the 450 trucks which could potentially be lost to the industry are owned by small independents and half by larger operators, with each sector losing approximately 15% of its fleet.

IMPACT ON THE NUMBER OF OPERATORS

A revenue decline of $22.3 million in the gravel haul industry would be split into $9.8 million from the small independent sector and $12.5 million from larger operators.

Taking average gravel revenues in each sector into consideration, the *equivalent* of approximately 200 operators will be removed from the industry (i.e., if all their gravel revenues stemmed from AT&U, 200 companies would not be able to haul gravel). About 170 of these operator-equivalents would be small independents (of which 1/3 or two-thirds would be one-truck operators) and 30 would be larger operators.

RATE CHANGE IMPACTS BY REVENUE-SIZE GROUP

REVENUE IMPACTS

The average change in revenues which will be experienced by truckers in different revenue groups (e.g., $0-$30,000, $30,001-$60,000, etc.) is shown in Exhibit 33. It is clearly the larger operators that will experience the greatest revenue change in dollar terms. In fact, on an industry basis, more than three in every five dollars (63%) lost or gained as a result of a change in the minimum haul rate would be lost or gained by those operators with total revenues of $240,000 and over.

In an additional run of the model, using broader revenue-size categories, it was found that a handful of very large companies with multi-million dollar revenues, would together experience one-third of the total industry impact of a change in the minimum haul rate. Over half the companies in the highest income category are road construction contractors.

Although the dollar changes are greatest at the higher revenue-size levels, the percentage change is considerably lower, reflecting the greater diversity of revenue sources in the larger companies. Thus, for the most extreme (-40%) scenario, companies with revenues over $240,000 would experience a 3.7% change, while for those with lower incomes (i.e., below $240,000) the rate generally falls into the 8% to 12% range.

PROFITABILITY IMPACTS

Exhibit 34 shows that the $240,000+ revenue group will also be the one to experience greatest impact on actual profits with changes to the minimum haul rate. In the worst case scenario (-40%) the average loss in this group would be $29,400, cumulating to an industry total of $5.6 million of the $10.4 million that would be lost in profits.

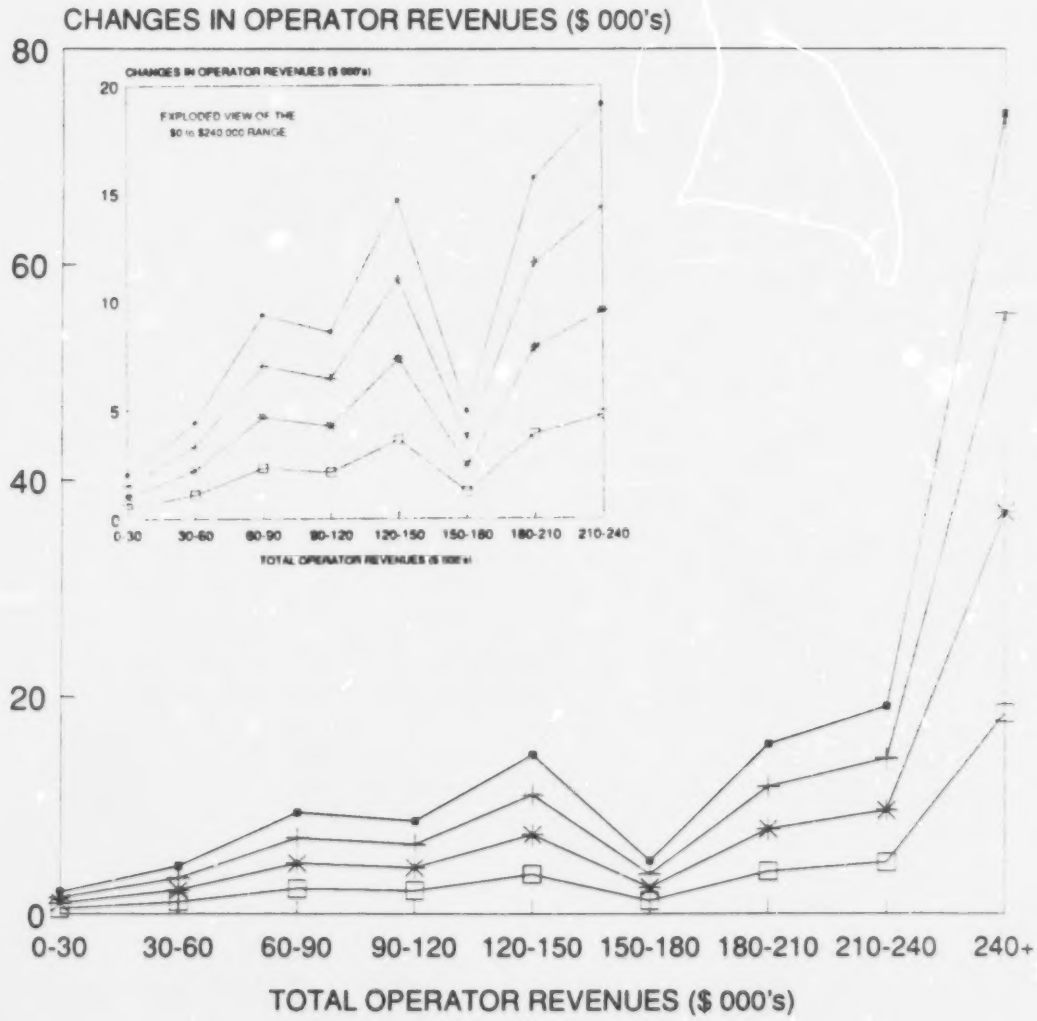
However, when expressed in percentage terms, this group would stand to only lose up to 8% of their average profits of $360,000, compared with groups with lower revenues whose average profits/earnings would decline by approximately 20%.

Further analysis of the higher revenue-size group (i.e., over $240,000) suggests that the above results hide a significant disparity in impacts. The companies with the very highest revenues appear to be marginal operations, with current profits/earnings running at 2% of

Exhibit 33

RATE CHANGE IMPACT ON AVERAGE OPERATOR REVENUES - BY TOTAL OPERATOR REVENUES

Change In
Min. Haul Rate: 40% 30% 20% 10%

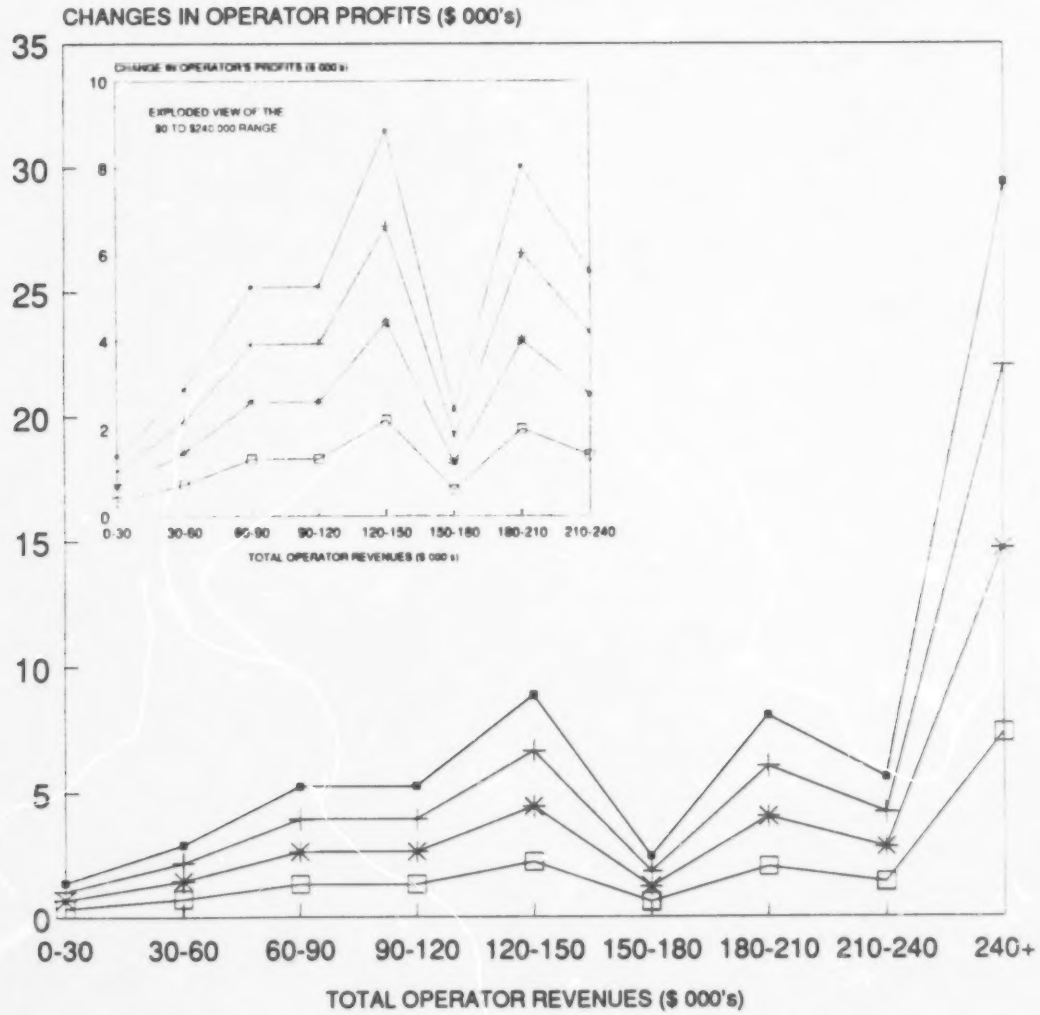


Industry:	104	449	269	146	80	34	48	6	191
Sample:	34	142	85	44	23	11	16	2	61

Exhibit 34

RATE CHANGE IMPACT ON AVERAGE OPERATOR PROFITS - BY TOTAL OPERATOR REVENUES

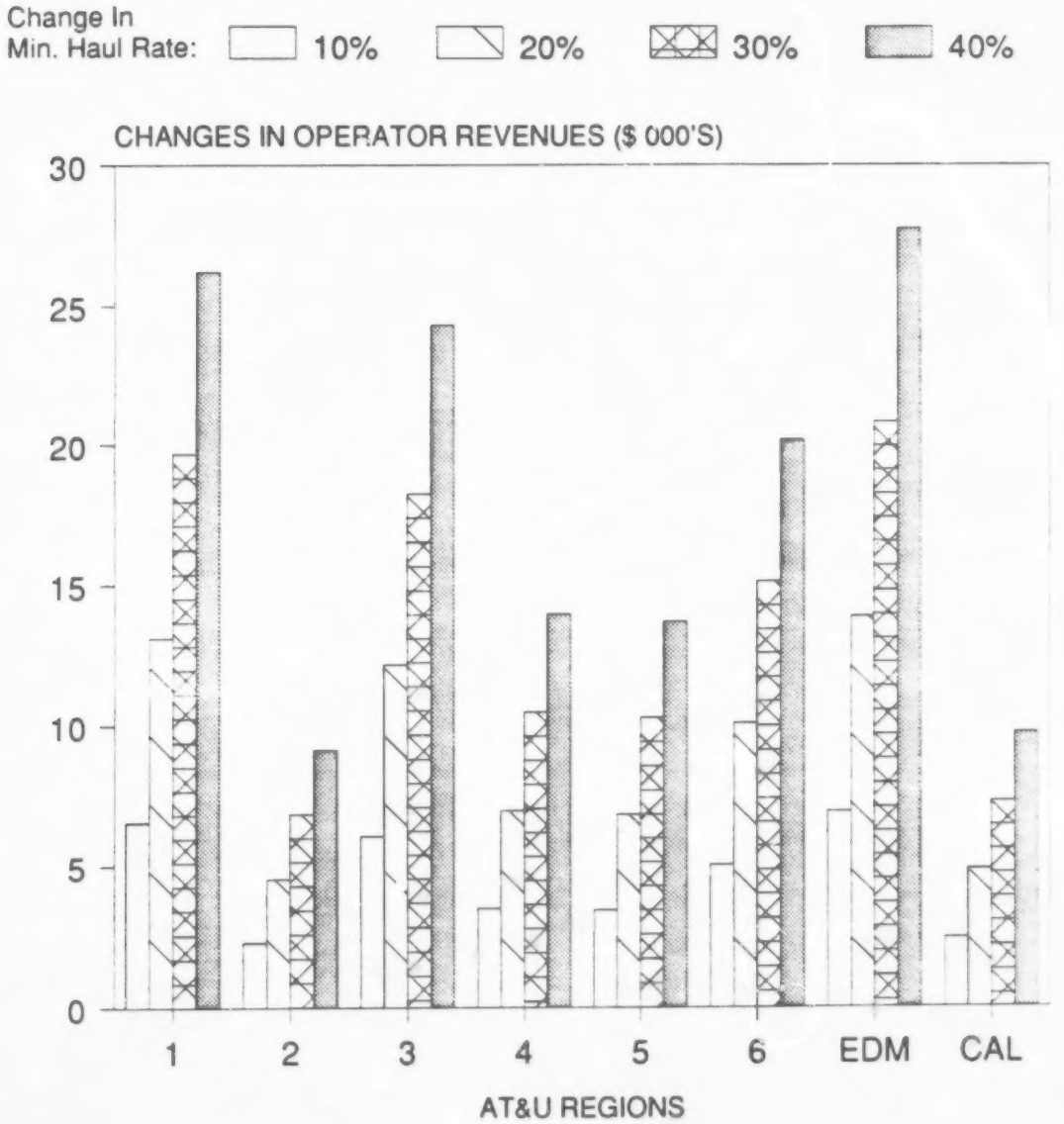
Change In
Min. Haul Rate: 40% 30% 20% 10%



Industry:	104	449	269	146	80	34	48	6	191
Sample:	34	142	85	44	23	11	16	2	61

Exhibit 35

RATE CHANGE IMPACT ON AVERAGE OPERATOR REVENUES - BY REGION



Industry:	95	161	167	170	442	292	175	78
Sample:	34	76	52	48	145	63	57	42

revenues. The impact of the worst case scenario is to reduce profits by half, to 1% of revenues.

IMPACT ON THE NUMBER OF TRUCKS

As found for profitability, the companies with the very highest revenues will be disproportionately strongly influenced by a rate change, standing to lose up to one in four of their trucks in the -40% scenario.

RATE CHANGE IMPACTS BY AT&U REGION

REVENUE IMPACTS

The impact of an AT&U rate change will vary from one region of the province to another. Exhibit 35 shows that the average operator in AT&U Regions 1, 3, 4 and Edmonton would see the greatest changes in revenues (in excess of $20,000) while operators in Calgary and Region 2 would experience the lowest revenue impacts.

In industry terms the following patterns would occur:

	40% Scenario	
	Revenue	*Change*
	$M	%
AT&U Region		
Region 1	2.5	11
Region 2		
- Total	1.5	7
- Calgary	0.8	3
Region 3	4.1	18
Region 4	2.4	11
Region 5		
- Total	6.1	27
- Edmonton	4.9	22
Region 6	5.9	26
Total	22.3	100

Thus, from a regional economic infusion/ depletion point of view, AT&U Regions 6, 3 and Edmonton would be impacted most.

PROFITABILITY IMPACTS

Operations in Regions 1 and 6 would experience the greatest impacts on the dollar value of profits/earnings (refer Exhibit 36) as a result of changes to the minimum haul rate. However, in percentage terms, Edmonton will experience by far the greatest change with an impact of up to 35% on profits (at the 40% level). The next highest impact would be experienced in Region 1, with a change of up to 23% in profits, while all other regions vary between 8% and 15%.

IMPACT ON THE NUMBER OF TRUCKS

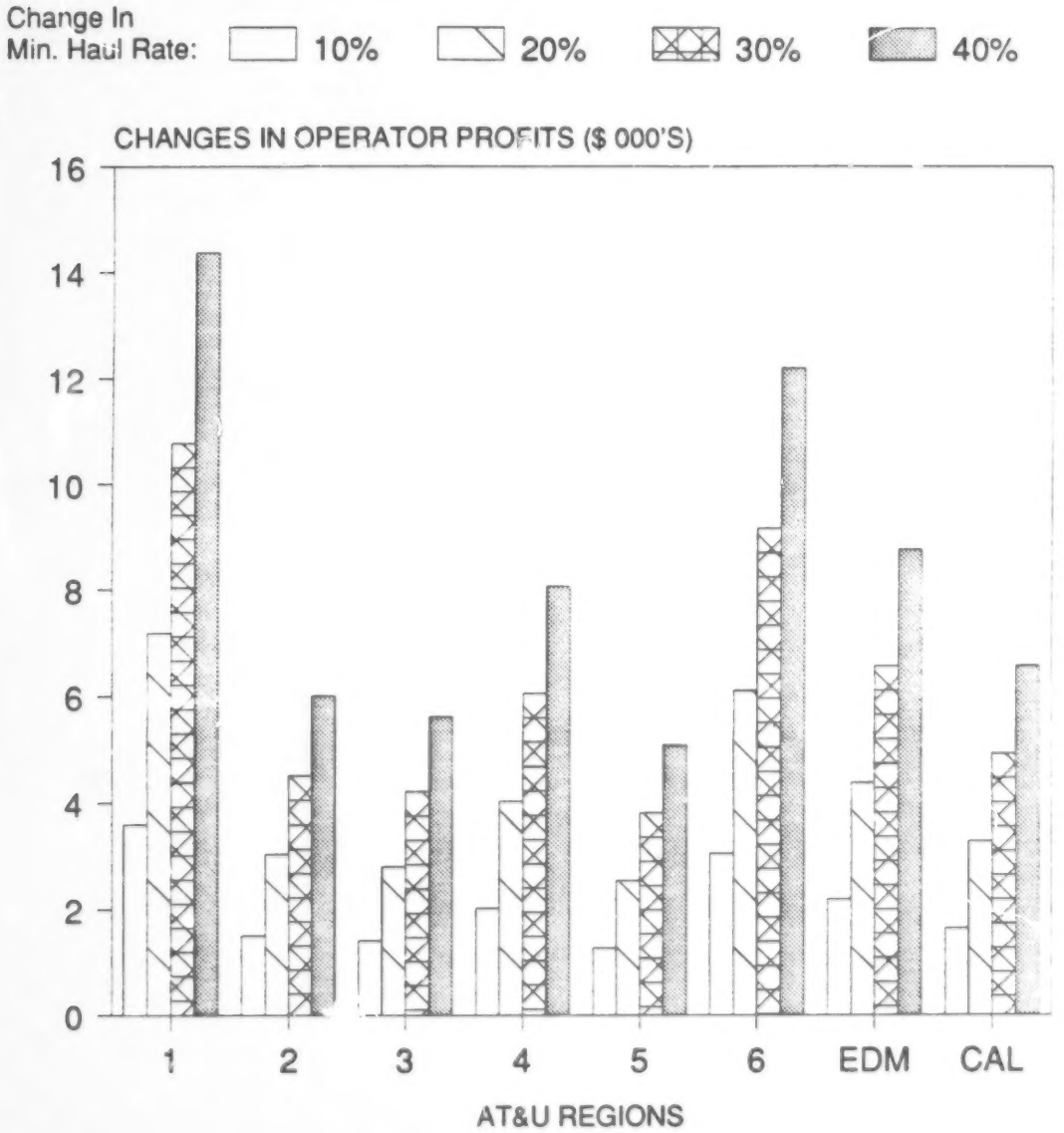
When change in the minimum haul rate is translated into the impact it will have on the gravel haul truck fleet in each region, the results suggest that northern Alberta, including Edmonton, will experience above average impacts.

For the worst case scenario, Edmonton would experience a 22% decline in trucks, Region 4 a 20% and Region 6 a 19% decline (compared to other Regions which fall into the 11% - 14% range). The remaining trucks will be distributed approximately as follows:

	Current Situation	*-40% Scenario*
Number of Trucks		
Region 1	330	290
Region 2		
- Total	470	420
- Calgary	270	250
Region 3	480	410
Region 4	390	310
Region 5		
- Total	720	620
- Edmonton	350	270
Region 6	620	510

Exhibit 36

RATE CHANGE IMPACT ON AVERAGE OPERATOR PROFITS - BY REGION



Industry:	95	161	167	170	442	292	175	78
Sample:	34	76	52	48	145	63	57	42

RATE CHANGE IMPACTS BY PROFITABILITY

REVENUE IMPACTS

Exhibit 37 demonstrates that companies most likely to be impacted by an AT&U rate change are those which are currently running at a deficit and those that are making the highest profits. This seeming anomaly is resolved through further examination of the data. Both groups have high average total revenues ($818,000 for those with a loss, $3.2 million for those earning profits in excess of $140,000) and lower than average revenues from gravel haul (25% versus 32% for the industry as a whole).

For the most extreme scenario (40%) the 72 companies in the high profitability group would account for 34% of the change in industry revenues, and the 138 companies in the deficit group for 23% ($7.6 million and $5.1 million of the $22.3 million respectively).

PROFITABILITY IMPACTS

The group which will experience the highest impacts in terms of dollar value of profits is again the currently most profitable group (refer to Exhibit 38). However the average $49,000 change represents only 5% of their average total profits of $928,000.

Most strongly impacted in percentage terms are operators with profits up to $140,000 (a change of approximately 20%) and those with a current loss (a 29% change).

IMPACT ON THE NUMBER OF TRUCKS

In terms of the impact of a minimum haul rate change on the trucks in the industry, only the group currently experiencing losses will be impacted to a greater than average extent. At the 40% scenario, 18% of the trucks in the deficit group would be affected.

CONCLUSIONS

The foregoing scenario analysis suggests that if removal of the minimum haul rate has a maximum effective impact of a 40% reduction, AT&U will save $22.3 million and the value of total gravel revenues will decline by up to 15%. However, since most gravel truckers have revenues from other sources (including other types of haulage) as well, the total impact on revenues of operators in the industry will be less than 5%.

Given that the minimum haul rate is higher than the going rate in the industry, it is not surprising that the impact of its removal would be greater on profits/earnings than on total revenues (-11% for the 40% scenario).

The question is, then, whose profits/earnings will be most affected by changes to the rate and by how much? The answer is that the companies with the very highest total revenues are the most vulnerable. Not only are their average profit margins very small (2%), but they stand to lose up to 50% of those profits. On average, Edmonton companies and those in Region 1, would also experience fairly large profit declines.

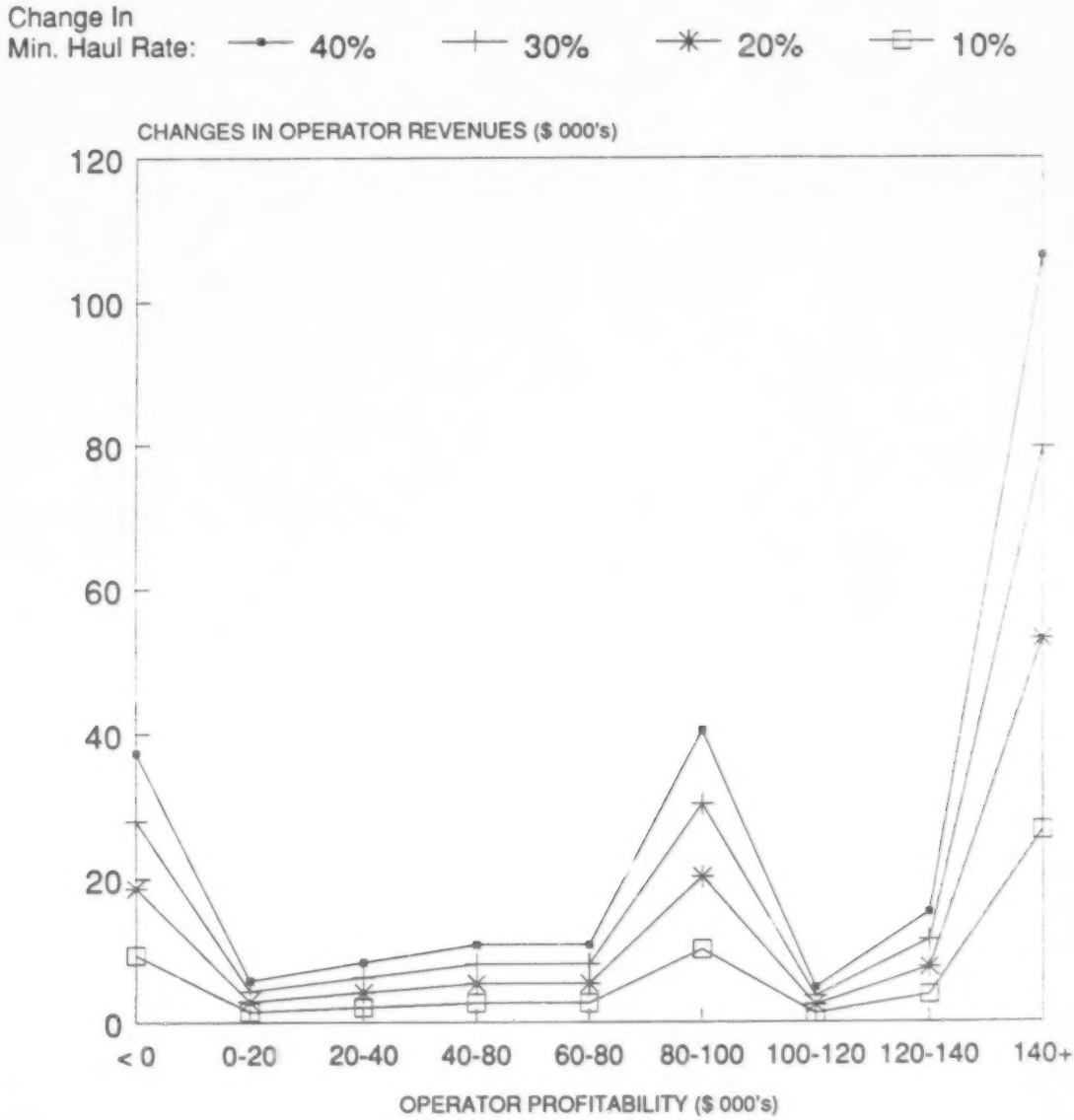
Large companies, defined in terms of total revenues (over $240,000 in the above scenarios), will experience the greatest dollar loss in income and profits if a rate reduction is put into effect, although the percentage impact is lower than for small operations.

It is also of interest that companies currently running at a loss tend to be larger companies and that they, together with other high income-high profit companies, will experience the highest average dollar losses in profitability.

When all these indicators are taken together, it is consistently the largest companies which stand to lose the most profits (in dollar terms) through reduction in the minimum haul rate.

Exhibit 37

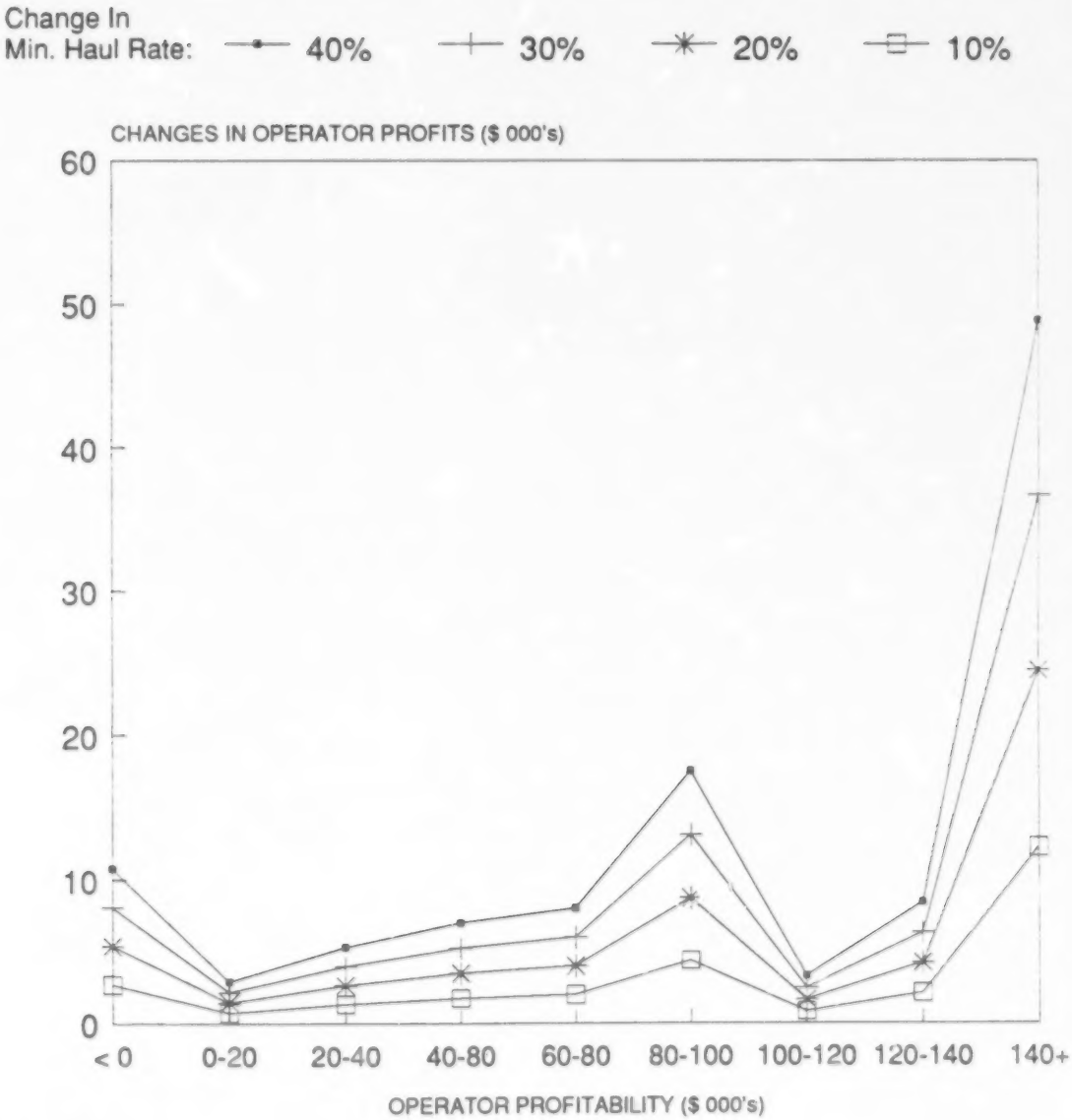
RATE CHANGE IMPACT ON AVERAGE OPERATOR REVENUES - BY PROFITABILITY



Industry:	138	529	314	184	48	35	12	3	72
Sample:	45	170	96	57	12	11	3	1	23

Exhibit 38

RATE CHANGE IMPACT ON AVERAGE OPERATOR PROFITS - BY PROFITABILITY



Industry:	138	529	314	184	48	35	12	3	72
Sample:	45	170	96	57	12	11	3	1	23

Smaller companies will experience a larger *percentage impact* on their profits/earnings with a change in the minimum haul rate, with only the one-truck owner being more obviously affected than the others.

The number of trucks in the industry could decline by up to 450 units, with some larger operators (those with the very highest total revenues and those operating at a loss at present) being impacted to a greater degree than the industry as a whole.

On a regional basis, the truck fleets in Edmonton and the two northern AT&U regions will be most severely impacted.

QUANTITATIVE ASSESSMENT OF DISCONTINUING THE THREE TRUCK AND LOCAL TRUCK CLAUSE

For the elimination of the three truck and local truck clauses to have an impact that can be measured using survey data in the impact model, it must be demonstrated that truckers outside a region can provide a service more efficiently than local truckers and/or operators with more than three trucks are more efficient than those with three or fewer trucks. Only in this way would there be a long lasting rationale for truckers outside an area, or those with more than three trucks, to consider providing gravel haul services (assuming no changes in business practices). Since moving a truck to areas throughout the province is more costly than using trucks in the area, profitability should be an indicator of effectiveness. Furthermore, allowing companies to provide more than three trucks assumes larger companies are more efficient than smaller companies.

An investigation and analysis of the data was unable to determine if these hypotheses were correct. As a result, from a quantitative viewpoint, it is not possible to determine the impact that the elimination of the clauses may have.

LIST OF MAJOR COSTS AND BENEFITS OF THE AT&U CONTRACTUAL CONDITIONS

IMPACTS ON	BENEFITS	COST/DISBENEFITS
AT&U	• Sought-after customer • Access to large majority of companies and trucks in the industry	• Up to $22.3 million in 1988 • Administration, enforcement and conflict resolution costs • Negative publicity • Purchasing practice inconsistencies within the Department
INDUSTRY	• 15% increase in industry revenues ($22.3 million) and $10.4 million increase in profits • Use of minimum haul rate as benchmark or maximum elsewhere • Supports up to 450 additional trucks in the industry	• Impetus to circumvent conditions • Inequity in the advantage given to those who circumvent conditions • Psychological pressures of circumvention • Dislocation of revenue and profit benefits to the very largest companies in the industry
INDUSTRY SECTORS	• Survival of the very largest companies which include contractors, construction companies and very large truckers • Protects the local trucker from outside competition • Helps to ensure that small operators get a fair share of the work • Supports operators in Regions 4, 6 and Edmonton in particular	• Prevents large companies from taking a larger share of AT&U work; may limit their growth • Limits the chances of non-local and larger operators getting AT&U work

5. KEY FINDINGS AND RECOMMENDATIONS

THE COMPOSITION AND STRUCTURE OF THE GRAVEL HAUL INDUSTRY

The Alberta gravel haul industry in 1988 was valued at $159 million, of which $55 million or 35% was spent by AT&U. Sixty-five million dollars stemmed from private contracts, $31 million from municipalities and $8 million from other provincial government departments. Eighty-four percent of truckers in the industry worked on AT&U contracts in 1987 and/or 1988 (85% of small independents, 77% of large operators), and most worked for other customers as well. AT&U operators are found throughout the province but are more likely than average to be located in northern Alberta and less likely to be in the metropolitan areas (Edmonton/Calgary).

Gravel haul revenues made up 28% of the average gravel trucker's total revenues, varying from far higher dependence among small operators earning below $100,000 (66%), to 22% among companies with total revenues in excess of $500,000. Thus smaller companies are more dependent on gravel haul revenues than larger ones whose income comes from more diverse sources. Larger companies are also more likely to view themselves as being in the construction rather than the transportation business and as being contractors rather than haulers. Revenues from AT&U gravel haul projects make up approximately 10% of the average gravel trucker's total income and this is true for both small independents and larger operators.

The industry is comprised of approximately 1,330 active gravel haulers, of which 84% are classified as small independents since they own between one and three dump trucks. Small independents generally have one or two employees (80%), have total revenues from all sources below $150,000 (85%) and own one truck (67%).

Approximately 3,150 dump trucks are owned by gravel haulers, 46% of which are tandem axle dump trucks, 29% tandem combinations, 17% tractor-trailer units, 5% belly dump and 2% single axle dump trucks. Half of these trucks are owned by small independents, with the overall mix of units being similar amongst small independents and larger operators. However, small independents enjoy only 39% of all gravel haul revenues in the industry.

COSTS AND BENEFITS OF THE MINIMUM HAUL RATE, THE LOCAL TRUCK CLAUSE AND THE THREE TRUCK CLAUSE

Each of the three AT&U gravel haul contract conditions are discussed separately below with regard to the costs incurred and the benefits generated, both for the Department and for the industry. In addition, the question of whether these benefits and disbenefits uniformly impact the industry, or only particular sectors within it, is addressed. Finally, the effects of elimination of each condition are listed, in order that the Department may assess whether continuation of the condition is necessary to maintain a "viable" industry.

Inter-relationships between the three contract conditions, which arise as a result of the impacts of the conditions, are explored below as well. The implications of removing a condition for the maintenance or elimination of the other conditions, are pointed out wherever such interactions occur. These inter-relationships add another layer of complexity to the interpretation of the costs and benefits of each condititition.

Exhibit 39 provides a simple listing of the costs and benefits of the three contract conditions (combined) to AT&U, the industry and specific sectors within the industry. However, it does not attempt to model the impact of elimination of the conditions or the inter-relationships between the conditions. These are discussed in the text.

COSTS AND BENEFITS OF THE MINIMUM HAUL RATE

WHAT SAVINGS IN EXPENDITURES COULD AT&U REALIZE IF THE MINIMUM HAUL RATE WERE ELIMINATED?

If the minimum haul rate were eliminated, AT&U would be in a position to save up to $22.3 million, assuming that the industry haul rate is no more than 40% lower than the current minimum haul rate. The $22.3 million represents about 5% of AT&U's budget for road construction and improvements. If these funds were reapplied to road construction, they could be used to build about 56 kilometers of additional paved primary highway or 86 kilometers of paved secondary highway each year.

There would also be minor savings in administration and conflict resolution costs.

WHAT OTHER DISBENEFITS DOES AT&U INCUR AS A RESULT OF THE MINIMUM HAUL RATE?

There is a political cost to the Government where the minimum haul rate is circumvented by contractors working on AT&U projects. For example, the extensive media coverage of reported kickback schemes in 1988 and subsequent RCMP investigation, provided unwelcome negative publicity for the Department.

The minimum haul rate is also a source of discomfort to the Department in that other departmental purchasing practices follow market conditions and are not artificially supported.

Finally, there are some operators (2% of the industry) who do not work on AT&U projects because they consider the rates to be too low or because they cannot make money hauling for the Government, while another 0.5% avoid AT&U projects because of contractor abuse.

WHAT BENEFITS DOES AT&U EXPERIENCE FROM THIS EXPENDITURE?

AT&U is a sought-after customer and has access to at least 84% of the 1,330 companies and 90% of the 3,150 trucks in the industry. This should provide AT&U's contractors with sufficient choice to ensure use of an optimal mix of units on most contracts (and presumably does so, since the issue was rarely raised by contractors interviewed in the survey).

WHAT BENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THIS ADDITIONAL EXPENDITURE?

Of the $22.3 million which would not be earned by operators in the industry if market rates prevailed (and were 40% lower than the minimum haul rate), $10.4 million represents industry profits/earnings. *These earnings are particularly critical to the survival* of some of the largest companies in the industry.

Less diversified, lower income companies enjoy proportionately higher profits/earnings from AT&U, with an average value to the individual operator of up to $5,000 (over and above what market rates might yield).

Many other road building jurisdictions in the province consider the minimum haul rate set by AT&U in setting their own rate. It is frequently regarded as a benchmark or maximum for the industry. This position is favored by the AGTA and some operators.

WHAT DISBENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THE MINIMUM HAUL RATE?

Inequities do occur among contractors bidding for AT&U work where they are willing and able to absorb some of the costs of gravel hauling at the minimum haul rate, or where the minimum haul rate is circumvented. The problem of contractor pressures on individual truckers, appears to impact no more than 5% of the industry.

Disbenefits thus occur for contractors who adhere to the AT&U minimum haul rate in bidding (since the lowest bid wins) and on their own revenues and profits.

For the individual truckers who may be subject to kickback arrangements, they are probably not being paid less than the going industry rate (which would be the position if the minimum haul rate were removed) but do suffer psychological pressure resulting from the activity (e.g., feelings of anger, helplessness, resentment, etc.).

DO RATES PROVIDE A UNIFORM BENEFIT/DISBENEFIT TO THE SMALL INDEPENDENTS AND THE WHOLE INDUSTRY?

Since 84% of gravel haul operators have worked on at least one AT&U project in the past two years, the benefit of a higher than market rate is being experienced widely through the industry, both among small independents and larger operators.

On average, 36% of the gravel haul revenues of small independents are from AT&U projects, while 33% of the gravel haul revenues of larger operators are from AT&U projects. The comparable figure for the industry as a whole is 35%.

Among small independents, 10% of their profit/earnings stem from "additional" AT&U revenues, while the comparable figure is 12.5% among larger operators and 11% for the industry as a whole.

One sub-group within the industry, however, does benefit substantially more than others. The companies with the very highest revenues, several of which are construction contractors, enjoy one in every three dollars AT&U spends over and above market rates and one in every six or seven dollars generated as extra profits in the industry. These companies only provide 5% of the trucks in the industry. The reason for this substantial dislocation of benefits towards a few very large companies is open to conjecture.

IS THE RATE PROTECTION REQUIRED TO MAINTAIN A VIABLE INDUSTRY?

Since there is no commonly accepted definition of what a viable industry is, the following is presented for consideration.

Removal of the minimum haul rate could result in a decline of 15% of revenues to the gravel haul industry. In turn, this translates into a potential 15% decline in the number of trucks available (i.e., approximately 450 of more than 3,000 units currently available in the industry).

It is again the very largest operators, as well as companies currently operating at a loss, that will lose a higher than average proportion of their trucks.

The decline in the number of trucks will not occur evenly throughout the province - the two northern regions (Region 4 and 6) and Edmonton, will be the most seriously impacted.

In view of the fierce competition for work which exists in the industry, it is likely that some decline in the number of trucks available will not impair the province's road building program. What cannot be judged, however, is whether an initial decline of 450 units will result in a truck shortage and change the industry from a buyer's market to a seller's market, putting upward pressure on free market rates.

Furthermore, projected road building activity in each region will need to be evaluated to determine whether the regional declines in

available units will affect building programs. If a regional supply problem is likely to result, elimination of other contractual conditions (especially the local truck clause) would be a necessary adjunct to elimination of the minimum haul rate.

Perhaps the most serious impact, however, is the threat posed by removal of the minimum haul rate to the financial viability of some of the largest contractors in the province. Removal of the minimum haul rate will be highly detrimental to these companies and could prove fatal to their existence, unless accompanied by the removal or reduction of other contractual restrictions (particularly the three truck clause), which would allow them to expand their operations. Even with full competition, it is not known:

- Whether the companies will have the capital to invest in expansion (their revenues per truck from gravel haul are far higher than those of smaller operators, suggesting they may also be busier and therefore that there may be little excess capacity).
- Whether the companies will have the management skills or interest to expand, since few perceived or felt they would take advantage of the opportunity when responding to the survey.
- Whether the companies would be able to improve their profitability at market rates, given that their current profits are so heavily dependent on the presumably artificially high AT&U revenues.

Among other companies in the industry, the one-truck owner will be more seriously impacted than the others, but not as seriously as the very largest companies. One-truck companies will experience, on average, a 7% decline in total revenues and a 16% decline in profits/earnings. For example remainder of the industry, removal of the minimum haul rate will have a 4% impact on total revenues and result in a decline of 8% in profits/earnings.

COSTS AND BENEFITS OF THE LOCAL TRUCK CLAUSE

WHAT ARE THE COSTS TO AT&U OF THE LOCAL TRUCK CLAUSE?

AT&U incurs some costs through enforcement of the local truck clause which specifies that at least 50% of trucks on a project must be drawn from the local area in which the construction is taking place, where available.

The costs incurred are primarily for administration and in inconsistency with other Department practices. In view of the fact that some truckers are circumventing the system by establishing post office boxes in various parts of the province, the inequities caused by this also have the potential to generate criticism of and negative publicity for the Department.

Some contractors feel this clause hinders AT&U projects by forcing them to use unskilled truckers or unsafe trucks. The importance of this issue is evidenced by recent media coverage of a police crackdown on safety of trucks on the road. However, since this problem was mentioned by only 5% of the contractors, it may be a minor one on AT&U projects.

WHAT BENEFITS DOES AT&U GAIN FROM THE LOCAL TRUCK CLAUSE?

The primary benefits to AT&U of the local truck clause is to position the Department as a preferred customer throughout the province, since truckers generally do not want to travel far from home or incur the costs associated with doing so.

WHAT BENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THE LOCAL TRUCK CLAUSE?

Most operators perceive the clause as a fair way of sharing the available work, of protecting the local operator from large outside contractors and of enabling them to work close to home.

This is the industry favorite of the three clauses as framed at present. The minimum haul rate is perceived as more essential, but the rate itself is being heavily criticized. However, if the minimum haul rate were eliminated and the local truck clause preserved, the resulting pressure on revenues and profits would create additional incentives for operators to circumvent the local truck clause. If the three truck clause were eliminated and the local truck clause preserved, the effect would also be to create additional abuse as expansion-minded companies chased work.

WHAT DISBENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THE LOCAL TRUCK CLAUSE?

The local truck clause places limitations on geographic work freedom, a fact which is of concern to 5% of the industry. These operators would take advantage of elimination of the restriction by moving around the province to find work.

A disbenefit also occurs for local haulers who adhere to the local truck clause, in comparison to those who circumvent it by establishing post office box numbers in different areas of the province. That this is not an extensively voiced concern (9%) may reflect the potential for finding work outside if one wants it, since up to 50% of units on a project can be hired from elsewhere.

DOES THE LOCAL TRUCK CLAUSE PROVIDE A UNIFORM BENEFIT/ DISBENEFIT TO THE SMALL INDEPENDENT AND THE WHOLE INDUSTRY?

Given that both small independents and larger operators are located in similar proportions throughout the province (the only exceptions being Region 5 and Edmonton which have significantly more smaller independents than larger operators), the benefits/disbenefits will be experienced equally by local truckers in both sectors.

IS THE LOCAL TRUCK CLAUSE REQUIRED TO MAINTAIN A VIABLE INDUSTRY?

The primary effect of elimination of the local truck clause would be a loss of protection from outside competition for the local trucker. While such competition might put downward pressure on rates in a free market context, it does not mean that there will be insufficient trucks to carry out construction work, only that there might be a redistribution of work from small local operators to larger companies or other small operators from outside the area.

Given the findings that the largest companies in the industry appear to be marginal operations making a disproportionately high percentage of their profits from current AT&U work, access to more AT&U work should be especially beneficial to their bottom line. However, if elimination of the local truck clause is accompanied by elimination of the minimum haul rate as well, stabilization of these companies will not occur. In fact, the effect may be to concentrate AT&U work more heavily with companies that are the most vulnerable to failure.

Whether the local truck clause is required to maintain a viable industry, depends on one's definition of viability.

COSTS AND BENEFITS OF THE THREE TRUCK CLAUSE

WHAT ARE THE COSTS TO AT&U OF THE THREE TRUCK CLAUSE?

AT&U incurs some costs through enforcement of the three truck clause which specifies that a company may not provide more than three trucks to haul gravel on any AT&U project.

The costs incurred are primarily for administration and in inconsistency with other Department practices. In view of the fact that some truckers circumvent the system by registering units in the names of other family members or of individuals in the company, the

inequities caused by this also have the potential to generate criticism of and negative publicity for the Department.

WHAT BENEFITS DOES AT&U GAIN FROM THE THREE TRUCK CLAUSE?

No significant benefits to AT&U were determined for the three truck clause.

WHAT BENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THE THREE TRUCK CLAUSE?

Most operators perceive the three truck clause as a fair way of sharing the available work, ensuring that a man with one truck gets a chance and preventing large contractors from monopolizing the industry.

The three truck clause is the most important of the three contractual conditions in protecting the small independent operators. However, if the minimum haul rate were eliminated and the three truck clause preserved, it would create additional incentive to larger operators to circumvent the restriction, since their revenues and profits will be under increased pressure.

WHAT DISBENEFITS DOES THE INDUSTRY EXPERIENCE AS A RESULT OF THE THREE TRUCK CLAUSE?

The three truck clause places limitations on the number of trucks one company can use on an AT&U contract. It does not limit the size of the company per se, since most truckers work for a variety of customers.

About 3% of all operators (including 6% of contractors, 11% of larger companies and 28% [6] of those with 11+ trucks) consider the three truck rule too limiting to growth, suggesting that the number should be raised.

About 5% of operators feel that elimination of the three truck clause would give them a better chance to get work and 1% stated that they would take this as an opportunity to expand their equipment.

The three truck clause also provides a disbenefit for those operators who do not register their trucks in different names, against those who do. This practice was a source of complaint about the condition among 8% of the survey respondents.

DOES THE THREE TRUCK CLAUSE PROVIDE A UNIFORM BENEFIT/ DISBENEFIT TO THE SMALL INDEPENDENT AND THE WHOLE INDUSTRY?

The three truck clause provides benefits to the small independent trucker. However, only 8% of larger operators believe that removal of the three truck clause will have a beneficial effect on them, with 43% perceiving no effect and 24% a negative effect. Thus, although they may have more than three trucks, some of the larger operators feel threatened by the potential for increased competition from very large companies and hence the three truck clause provides protection for them too.

IS THE THREE TRUCK CLAUSE REQUIRED TO MAINTAIN A VIABLE INDUSTRY?

The primary effect of elimination of the three truck clause would be a loss of protection from competition from large companies for small independents and for some operators with four or more trucks. While this might put downward pressure on rates in a free market context, it does not mean that there will be insufficient trucks to carry out construction work, only that there might be a redistribution of work from small independents to larger companies.

Given the findings that the largest companies in the industry appear to be marginal operations making a disproportionately high percentage of their profits from current AT&U work, access to more AT&U work should be especially beneficial to their bottom line. However, if elimination of the three truck clause is accompanied by elimination of the minimum haul rate as well, stabilization of these companies will not occur. In fact, the effect

may be to concentrate AT&U work more heavily with companies that are the most vulnerable to failure.

As with the local truck clause, the question as to whether the three truck clause is required to maintain a viable industry depends on one's definition of viability.

THE QUESTION OF INDUSTRY VIABILITY

The preceding analysis has addressed three of the four areas of investigation required to meet the terms of reference for this study.

However, the question, 'is rate and hiring protection required to maintain a viable industry?' must yet be answered. As noted earlier, without a clear definition of viability, it is difficult to answer the question; and it is difficult to recommend a policy. The following discussion is designed to lay the basis for the pivotal question of viability.

Responses from other provincial governments, the survey of truckers and the analysis of the financial impact model, show that viability can be interpreted in many different ways. Industry viability can be defined (in no particular order):

- in financial terms, i.e., the revenues and profitability of companies in the industry;
- in economic activity terms, i.e., the distribution of economic benefits through different regions of the province;
- in terms of the size of the industry, e.g., the number of operators or the number of trucks available within the industry;
- in terms of the availability of different types of trucks for gravel hauling under different conditions;
- in terms of the distribution of revenues and profits through different sectors of the industry (e.g., small independents versus larger operators, contractors versus haulers, transportation companies versus construction companies, etc.);
- in terms of the distribution of trucks and/or gravel haul capacity in different sectors of the industry;
- in terms of the distribution and availability of trucks in different regions of the province;
- in terms of preservation of industry competition and prevention of monopolistic situations;
- etc.

In addition to being defined in different ways, industry viability can also be viewed from the perspective of:

- Departmental needs,
- government needs,
- industry needs, and
- needs of sectors within the industry.

Furthermore, viability can be viewed from a point-in-time perspective. For example, changes to the three truck haul contract conditions may significantly affect the financial viability of certain sectors of the industry, however, the industry itself may reorganize and in total again become viable. In this example the industry remains viable in terms of number of trucks, etc., but it may take a different form (e.g., different number of companies, different company organization, different sizes of companies, as compared to the current situation).

Thus, in order to meet the Department need of fulfilling its mandate to build roads, all that may be required for a 'viable' industry is a sufficient number of trucks and an appropriate mix of truck types. In contrast, maintaining the current financial well-being of industry operators may define 'viability' from an industry perspective.

In view of the lack of clear direction as to the definition(s) and perspective to be applied, for the purpose of this study the industry will be considered viable if it will continue to exist (i.e., sufficient numbers of trucks and an appropriate mix of trucks) following a change in AT&U policy related to gravel haul contract conditions.

Therefore, even if certain sectors of the industry are at risk if the contract conditions are changed, or even if a number of trucks may be lost due to the changes, as long as these impacts do not result in an insufficient number of trucks or inappropriate mix of trucks (to allow the road building customers to meet their needs), the industry would still be seen as viable.

POLICY OPTIONS

The policy options available to the Department range from a "do nothing" option (i.e., maintain the status quo), to elimination of all three conditions. Between these extremes, the alternatives include elimination of one or two of the three conditions in various combinations, and maintaining one or more of the conditions but changing the quantity associated with it (for example, decreasing or increasing the number of trucks that can be used on an AT&U contract).

MAINTAIN ALL CONDITIONS

Maintaining the status quo will simply result in continuation of the costs and benefits that currently exist for AT&U and for the industry. These were summarized in Exhibit 39 (facing page 43).

However, an administrative change could be relatively easily implemented which would relieve the Department of the administration and negative publicity costs. This would involve the use of an impartial third party to act as a dispute resolution agent.

Another new initiative which would help to reduce administration and negative publicity costs, is an improved communication program. This would:

- create greater awareness of the three contract conditions among truckers,
- help truckers gain an understanding of and provide credibility for the minimum haul rate itself, through explanation of the derivation of figures used to set the rate,
- provide comparative minimum haul rate figures with other provinces to give truckers a better perspective for judging the efforts of the Department,
- etc.

A regular (e.g., bi-annual) newsletter mailed to truckers registered with AT&U is one format which could be considered, since this would provide a "soft" approach to education, as well as an opportunity to provide useful information on such topics as upcoming road building projects, Department budgets, and a message from the Minister.

ELIMINATE ONE OR TWO CONDITIONS

The earlier analysis of survey data, interviews with the two Alberta industry associations and the results from the financial impact model, suggest that elimination of any one of the three conditions will have repercussions on each of the others.

For example, *removal of the minimum haul rate* will result in downward pressure on revenues and profits. While it is likely that up to 15% of trucks will ultimately leave the industry, there will be an initial scramble for more work among small independents to maintain standards of living, and among the very largest operators whose profits may be severely affected and whose businesses may be threatened. This increased competition opens the door to more operators circumventing the local truck clause and three truck clause, with concomitant potential for problems and

negative publicity. The magnitude and effects of these reactions must be weighed against the gains AT&U will make in terms of budget savings and consistency of approach.

By the same token, the *removal of either or both the three truck clause and the local truck clause*, without elimination of the minimum haul rate, will also lead to increased competition, but of a different type. Removal of these clauses will primarily benefit larger companies who can move more freely about the province and/or can offer more than three trucks on a project, thus increasing their probability of receiving AT&U work. The increased competition will provide additional incentive to circumvent the remaining conditions. One can also envisage the potential for "quantity" deals which will result in effective rates below the minimum haul rate with all the attendant publicity problems.

Thus elimination of one or two conditions, no matter which they are, is likely to create additional incentives to circumvent the remaining rules as a result of more intense competition within the industry.

ALTER THE CONDITIONS

Rather than totally eliminating some conditions, another alternative is to change the conditions. For example, the minimum haul rate could be decreased (as was done in Saskatchewan in January 1989); the number of trucks from one company that can be used on an AT&U contract could be increased; the percentage of local trucks required to be used on a contract could be decreased.

The benefit to AT&U of altering gravel haul conditions would be a limited budgetary saving if the minimum haul rate were reduced. However, negative industry reaction to any such changes can be expected, since these changes will result in an increase in competition and a reduction in revenues and profits.

This type of approach will not address the more fundamental issue of inequities created in the industry as a result of circumvention of the conditions, and of policy inconsistencies, costs and negative publicity for AT&U.

Another change which could be considered is introduction of a new and appropriate minimum haul rate for combination units, as this seems to be the area in which the greatest rate disparity is occurring and where pressure is most likely to be exerted by contractors on the truckers they hire. However, since a combination unit rate is likely to be lower than a tandem truck rate (due to the higher capacity and productivity of such units), this change could potentially conflict with AT&U fleet efficiency objectives. It is conceivable that the mix of units available in the industry would become biased toward the higher paying tandem axle dump truck as a result of a rate disparity. Furthermore, and of greater importance, the introduction of such an approach would likely create such complexities for individual trucking firms that it would become totally impractical.

ELIMINATE ALL CONDITIONS

Elimination of all three contractual conditions will have results which will provide advantages and disadvantages to both the industry and AT&U.

Advantages to AT&U

- Eliminate administration costs and negative publicity arising from circumvention.
- Up to $22.3 million in budget savings and equivalent potential increase in the dollars that AT&U can use (assuming that market rates are up to 40% lower than the minimum haul rate).
- Consistency with other Departmental practices.
- Allows the free market to prevail.

Disadvantages to AT&U

- Significant protests can be expected against removal of any of the clauses and against elimination of the minimum haul rate in particular.

- If the number of trucks declines too far within the province, costs will start to climb and the budget saving will be less than estimated.

Advantages to the Industry

- Allows contractors to pay market rates;

- Allows larger and more entrepreneurial companies to expand by competing throughout the province and supplying more trucks for any one job.

- Eliminates the need for circumvention and the advantage given to those who do so.

- Potential for increased market rates in the future.

Disadvantages to the Industry

- Increased competition throughout the province.

- Initial reduced revenues throughout the industry.

- Revenues may be displaced from the region of work to other regions in the province.

- Significant downward pressure on the profitability of some very large companies and some downward pressure on the profitability of all companies.

Neutral

- Will redistribute AT&U revenues within the industry with larger companies gaining and small ones losing (this will not make the industry more stable and may make it less so; it is also unlikely to significantly change the mix of trucks available).

CONCLUSIONS

SUMMARY OF COSTS, BENEFITS AND OPTIONS

The three AT&U gravel haul contract conditions have both positive and negative impacts on AT&U and the industry.

These include a cost of up to $22.3 million for AT&U (assuming a market rate up to 40% below the minimum haul rate). AT&U also shoulders administration costs, negative publicity about circumvention of the conditions and purchasing practice inconsistencies within the Department. The benefit is access to almost the entire gravel haul industry for Departmental road building projects.

For the industry as a whole, the minimum haul rate results in an increase in revenues of up to $22.3 million, and significant profits of up to $10.4 million. However, the financial benefits are not equally spread, with the very largest companies taking a disproportionately high share of both additional revenues and profits. Another cost to the industry is the inequity created where truckers circumvent the conditions and this, in turn, raises further problems (e.g., resentment among those who adhere to the conditions, anger among those forced to provide kickbacks, etc.).

Within the industry, the conditions do not always have equal impacts on all sectors. The survival of the very largest companies is linked to the minimum haul rate; yet the other conditions prevent large companies from taking a greater share of AT&U work since they protect the small independent and/or the local trucker. There are also differences in the benefits the conditions have in different regions of the province.

The Department has four basic policy alternatives: (a) maintain the status quo, (b) eliminate one or two of the three conditions, (c) change the conditions, and (d) eliminate all conditions.

Most of the costs and benefits that currently occur will continue if (a) the status quo is maintained. Some of the disbenefits can, however, be mitigated through administrative modifications.

The alternatives of eliminating one or two conditions or changing conditions (i.e., (b) and (c)), appear likely to create more problems than they solve. The industry would be thrown into a more competitive mode but, since restrictions on competition would remain, the potential for greater circumvention is enhanced, with its accompanying potential for negative publicity. These alternatives would also put pressure on revenues and profits and threaten at least one industry sector.

Elimination of all three conditions (alternative (d)) would provide a saving to the Department of up to $22.3 million, provide consistency with other Departmental purchasing practices and eliminate administration costs. While it will also eliminate negative publicity relating to circumvention, significant protests (and media coverage) can be expected from across the industry.

Removal of all restrictions will provide the opportunity for companies to expand; however, there will be reduced revenues and profits, fewer trucks, and increased competition throughout the industry. There is also a risk that the very large and marginal contractors in the industry will fail.

IMPACT OF THE VARIOUS OPTIONS ON INDUSTRY VIABILITY

In the case of the do nothing option, in which all conditions are maintained, it can be expected that the industry will continue to operate in the same way as at present, with the same costs and benefits to the industry as a whole and to individual sectors within it.

Under all three of the remaining options (i.e., changes to conditions, removal of one or two, or elimination of all three conditions) it is anticipated that the industry will continue to operate despite a reduction in size and despite the likelihood of significant short and medium term disruptions which could result in a long term change in the structure of the industry.

The type of impacts and reactions which can be expected for all three change/elimination options are the same, though the magnitude will vary. For example, a change in or removal of the minimum haul rate will result in an initial direct decline in revenues and profits. However, if the minimum haul rate is maintained, while other clauses are changed or eliminated, there will be an increase in competition which will, in turn, also exercise downward pressure on rates, resulting in an indirect decline in revenues and profits. Thus the only differences will be in the magnitude of the impacts and reactions.

The type and magnitude of the impacts and reactions which can be anticipated from these policy options include:

Financial Impacts

- An average reduction in total revenues of less than 5%.
- An average reduction in profits/earnings of up to 11%.
- A significant financial threat to the very largest contractors in the gravel haul industry, and a higher than average financial impact on one-truck owners.

Industry Size and Sector Impacts

- A reduction of up to 15% in the number of trucks in the industry (i.e., 450), approximately half from the small independent sector and half from larger operators.
- A reduction of up to 15% in the number of operators in the industry, including approximately 110 one-truck owners, 60 other small independents and 30 larger operators.

Industry Reactions

- Increased competition for work, especially from larger and expansion minded companies.

- Increased circumvention of the conditions if they are altered or if only one or two are removed.

- Strong negative reactions and widespread protects (and likely media coverage) from across the industry, based on operators' perceptions of the threat changes to or removal of the conditions pose to their livelihood.

The shake-out will almost certainly be a traumatic one both for the industry and AT&U and, once it is over, there are no assurances that:

- The new market rate will not be greater than at present, with consequent reduction to the AT&U savings.

- A newly rationalized Alberta industry will be as or more effective and efficient than the present one.

- Demands for re-instatement of the minimum haul rate (and possibly the other conditions) will not be made in the long-term, as has occurred in Ontario.

- The problems currently experienced with circumvention of the conditions and contractor exploitation of the weaker position of small companies will not persist, albeit in a different form.

The magnitude of the impacts on the industry as a whole are not considered sufficiently severe to preclude it from continuing to function under any of the policy options.

RECOMMENDED OPTION

The gravel haul industry is expected to be viable, as earlier defined, under all four policy options. It is expected to remain of sufficient size to function and meet the needs of road construction customers. *Therefore, since the three truck haul contract conditions are not required to maintain industry viability, they should be eliminated.*

Implementation of the recommended option, elimination of all three contractual conditions, can be undertaken in various ways. These are discussed below.

TIMING AND IMPLEMENTATION

Three alternatives have been identified for implementation of the recommended policy option and are presented for consideration. The alternatives are based on timing for removal of the conditions. They are:

- Eliminate all conditions now,
- Phase out the conditions, and
- Eliminate all conditions at some future time.

Eliminate All Conditions Now

Elimination of the conditions now would effectively result in implementation over the next two years, since many contracts for 1990 are already in place.

An elimination of the contract conditions is not likely to be received by the industry with equanimity at the present time. Also, fairly immediate rationalization of the industry will be imposed and severe disruption in some individual truckers' livelihoods (both large and small) will result. Significant protests, lobbying and negative publicity can be expected.

Phase Out the Conditions

The three truck haul conditions could be phased out in one of two ways.

A gradual phase out time-table could be set, whereby each of the conditions is altered by a certain amount annually, over a set period, until it no longer applies. For example, an announcement that a 10% reduction in the minimum haul rate would be effected in each of the next three years (or until parity with market

rates is achieved) could be made, along with similar reductions in the local truck clause and increases in the three truck rule.

This approach would lead to ultimate elimination of the conditions and would allow the industry, (a) time to adjust to the changes and to more gradually absorb the impact of the changes, and (b) time to adjust to the idea of elimination of the conditions.

The downside of this approach will be an increase in administrative costs, the potential for protests, increased and ongoing lobbying and negative publicity over an ***extended*** period of time. Furthermore, if general economic conditions, and particularly non-residential construction conditions, do not improve over the phase-out period, the industry will experience the effects of increased competition: impetus to circumvention of the remaining conditions, reduced revenues and profitability, and a potentially fatal effect on some of the major contractors and construction companies.

The second type of phase out approach is to give more support to the current trend of issuing an increasing number of contracts with contractor supply or end product specifications. Use of such contracts will ultimately lead to the effective removal of all conditions, without the necessity of having to change the conditions themselves.

This approach, however, is likely to result in (a) growing discontent among gravel truckers with the Department for "changing the rules", as well as (b) similar industry impacts.

Eliminate Conditions at a Future Time

Since there is a correlation between strength in the industry and general economic conditions (and especially with conditions in the non-residential construction sector), the Department may be able to identify a more acceptable time for elimination of the conditions.

At a time of economic well-being in the industry, there will be a reduced differential between the minimum haul rate and the industry rate; large companies will probably be less dependent on AT&U gravel hauling to ensure their profitability and survival; and small independents and local truckers will likely not require protection when there is full employment.

Elimination of the conditions under these circumstances will have fewer negative repercussions for the industry and is less likely to create the severe structural distortions which may occur if the policy is changed too abruptly (under present economic circumstances) or extended over too long a period of time. If the conditions are eliminated under more favorable economic circumstances, in any later downturn, market forces will prevail, with everyone starting from a 'level playing field'.

6. CONCLUSION

Determination of the costs and benefits of AT&U's gravel haul contract conditions and of the implications for AT&U and the industry of alternative policy options, has proved to be a large and complex undertaking. Many of the key findings were not immediately evident, while some were contrary to pre-conceived expectations. Similarly, there were no obvious solutions to a situation that has both advantages and disadvantages associated with it.

The purpose of this project was to not only provide market and financial data on the gravel trucking industry, but also to provide alternative policies that the Department could pursue regarding the three truck haul contract conditions.

A significant difficulty in providing specific recommendations was caused by the lack of a clear definition for the term viability. Defining this term as meaning a sufficient number of trucks and appropriate mix of trucks to allow the road building industry to meet its gravel haul needs, was used. This resulted in a recommendation to eliminate all three truck contract conditions since the industry would remain viable even though there would be significant disruptions to both large and small operators.

Implementation of this recommendation can occur in a number of ways; each of which has varying degrees of impact, disruption and will result in varying degrees of protests.

The Coopers & Lybrand Consulting Group team express their appreciation to AT&U for the opportunity to carry out this most challenging assignment.

APPENDIX 1

INTERPROVINCIAL COMPARISONS AND INDUSTRY TRENDS

Alberta
TRANSPORTATION
AND UTILITIES

Office of the Senior Assistant Deputy Minister,
Engineering And Operations

2nd Floor, Twin Atria Building 4999 - 98 Avenue, Edmonton, Alberta, Canada T6B 2X3 403 427-2096

May 8, 1989

Mr.
Assistant Deputy Minister

Dear Mr. :

Alberta Transportation and Utilities is in the process of reviewing road construction and maintenance contract conditions relating to gravel truck hiring and payment practice.

We would appreciate receiving information on your provincial policy in this regard, as outlined in the attached list of questions.

The Coopers & Lybrand Consulting Group has been retained to assist us in this review and they will be in touch with you shortly to follow-up on the information.

Thank you for your assistance with this matter.

Yours truly,

M. A. Kehr, P.Eng.
Senior Assistant Deputy Minister
Engineering & Operations

Attachment

cc: Coopers & Lybrand Consulting Group

TRUCK HAUL CONTRACT POLICY

1. What are your policies relating to truck haul of gravel, sand, asphaltic mix and earth on contracts for road construction, maintenance and stockpiling?

2. Why were these policies put in place?

3 a. What are the advantages and drawbacks of these policies (e.g. financial implications for government and truckers, efficiency of industry, impact on small truckers)?

3 b. What changes to these policies, if any, are anticipated?

4. What significant truck haul policy changes have been made in the last ten years?

5. Why were these changes made? What were their impacts?

6. Alberta Transportation and Utilities has three conditions in the majority of its construction contracts for which the department designates and supplies the raw aggregate, as follows:

   Firstly, a LOCAL TRUCK CLAUSE , which states that, where available, 50% of the truckers are to be hired from within a boundary specified by the contract.

   Secondly, there is the THREE TRUCK CLAUSE, whereby any one truck owner is not permitted to provide more than three trucks on the contract.

   Thirdly, the contract specifies a MINIMUM HAUL RATE - a prescribed minimum payment covering a basic loading factor plus a weight/volume-times-distance haul rate to be paid by the contractor to truckers hauling granular and excavation material. Truck brokers may not be used to hire truckers and contractor's administrative costs may not be charged to the truckers.

6 a. Do you now, or have you at any time had similar stipulations?

6 b. If so, what are/were they, and what is/was your experience with them?

6 c. If you have eliminated such stipulations in the past, why did you do so, and what were the effects of same?

6 d. Please describe how this was dealt with.

7. We would appreciate any statistics you may have on the truck haul industry involved in road construction, maintenance and stockpiling in your province (e.g. number of companies, number of employees, number and types of equipment used, revenues and expenses, participation of private and government sectors in provincial road contracts, contribution of provincial road contracts to truck haul company revenues, etc.).

INDUSTRY TRENDS: NUMBER OF CARRIERS TRANSPORTING DUMP COMMODITIES

	1980		1982			1985			1987			1987/1982
	#	%	#	%	%Δ	#	%	%Δ	#	%	%Δ	%Δ in #
CANADA	877	100	923	100	+ 5.2	1,079	100	+16.9	1,204	100	+11.6	+30.4
ONTARIO	276	31	246	27	-10.9	313	29	+27.2	362	30	+15.7	+47.1
MANITOBA	49	6	42	5	-14.3	56	5	+38.1	71	6	+26.8	+69.0
SASKATCHEWAN	32	4	36	4	+12.3	52	5	+44.4	53	4	+ 1.9	+47.2
ALBERTA	**155**	**18**	**223**	**24**	**+43.9**	**174**	**16**	**-22.0**	**174**	**14**	**0**	**-22.0**
B.C. (INCLUDING YUKON AND N.W.T.)	100	11	113	12	+13.0	135	13	+19.5	148[1]	12	+ 9.6	+31.0

[1] YUKON and N.W.T. total is 6

Figures may not add due to rounding

Source: Statistics Canada, Motor Carriers of Freight and Household Goods Movers Survey. Special Tabulation based on Canadian domiciled for-hire trucking establishments (SIC Code 456) with gross revenues of $100,000 and over from freight operations in the preceding year and which had revenues >$0 from dump operations in the reported year.

Table 1

INDUSTRY TRENDS: NUMBER OF EMPLOYEES

	1980			1982			1985			1987			
	#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	1987/1982 %Δ in #
CANADA	7,840	8.9	100	6,330	6.9	100	7,666	7.1	100	8,525	7.1	100	+34.6
ONTARIO	3,091	11.2	39	2,446	9.9	39	2,497	8.0	33	3,364	9.3	39	+37.5
MANITOBA	830	16.9	11	317	7.5	5	792	14.1	10	491	6.9	6	+54.9
SASKATCHEWAN	282	8.8	4	178	4.9	3	294	5.7	4	285	5.4	3	+60.1
ALBERTA	**1,062**	**6.9**	**14**	**1,106**	**5.0**	**17**	**1,055**	**6.1**	**14**	**913**	**5.2**	**11**	**-17.5**
B.C. (INCLUDING YUKON AND N.W.T.)	937	9.4	12	644	5.7	10	745	5.5	10	855[1]	5.8	10	+32.8

1 YUKON and N.W.T. total is 46

Figures may not add due to rounding

Source: Statistics Canada, Motor Carriers of Freight and Household Goods Movers Survey. Special Tabulation based on Canadian domiciled for-hire trucking establishments (SIC Code 456) with gross revenues of $100,000 and over from freight operations in the preceding year and which had revenues >$0 from dump operations in the reported year.

Table 2

INDUSTRY TRENDS: EQUIPMENT

		1980			1982			1985			1987			
		#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	1987/1982 %Δ in #
CANADA	- Total	11,944	13.6	100	9,730	10.5	100	12,178	11.3	100	13,894	11.5	100	+ 42.7
	- Trucks	2,550	2.9	21	2,347	2.5	24	2,411	2.2	20	2,533	2.1	18	+ 7.9
	- Road Tractors	3,271	3.7	27	2,616	2.8	27	3,054	2.8	25	3,559	3.0	26	+ 36.0
	- Semi-Trailers	5,622	6.3	47	4,263	4.6	44	5,447	5.0	45	6,883	5.7	50	+ 61.5
	- Full Trailers	204	0.2	2	262	0.3	3	657	0.6	5	613	0.5	4	+134.0
	- Other	297	0.3	3	242	0.3	2	609	0.6	5	306	0.3	2	+ 26.4
ONTARIO	- Total	5,695	20.6	100	4,559	18.5	100	4,166	13.3	100	6,783	18.7	100	+ 48.8
	- Trucks	837	3.0	15	790	3.2	17	845	2.7	20	984	2.7	15	+ 24.6
	- Road Tractors	1,582	5.7	28	1,171	4.8	26	1,126	3.6	27	1,552	4.3	23	+ 32.5
	- Semi-Trailers	3,010	10.9	53	2,304	9.4	51	1,709	5.5	41	3,829	10.6	56	+ 66.2
	- Full Trailers	71	0.3	1	96	0.4	2	306	1.0	7	223	0.6	3	+132.3
	- Other	195	0.7	3	198	0.8	4	180	0.6	4	195	0.5	3	- 1.5
MANITOBA	- Total	1,231	25.1	100	396	9.4	100	1,836	32.8	100	767	10.8	100	+ 94.1
	- Trucks	140	2.9	11	65	1.5	16	109	1.9	6	117	1.6	15	+ 80.0
	- Road Tractors	321	6.6	26	161	3.8	41	365	6.5	20	267	3.8	35	+ 65.8
	- Semi-Trailers	720	14.7	59	169	4.0	43	1,177	21.0	64	321	4.5	42	+ 89.9
	- Full Trailers	8	0.2	1	1	*	**	34	0.6	2	54	0.8	7	+540.0
	- Other	42	0.9	3	0	0	0	151	2.7	8	8	0.1	1	-
SASKATCHEWAN	- Total	449	14.0	100	272	7.6	100	400	7.7	100	423	8.0	100	+ 55.5
	- Trucks	60	1.9	13	46	1.3	17	74	1.4	19	78	1.5	18	+ 69.6
	- Road Tractors	128	4.0	28	98	2.7	36	112	2.1	28	131	2.5	31	+ 33.7
	- Semi-Trailers	250	7.8	56	125	3.5	46	181	3.5	45	191	3.6	45	+ 52.8
	- Full Trailers	3	0.1	1	0	0	0	14	0.3	3	22	0.4	5	n/a
	- Other	8	0.2	2	3	0.1	1	19	0.4	5	1	*	**	- 67.7

Table 3

INDUSTRY TRENDS: EQUIPMENT (Cont'd)

		1980			1982			1985			1987			
		#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	#	Av/ Carrier	%	1987/1982 %Δ in #
ALBERTA	**- Total**	**1,243**	**8.0**	**100**	**1,448**	**6.5**	**100**	**1,680**	**9.7**	**100**	**1,368**	**7.9**	**100**	**- 5.5**
	- Trucks	**452**	**2.9**	**36**	**533**	**2.4**	**37**	**340**	**2.0**	**20**	**281**	**1.6**	**21**	**- 47.3**
	- Road Tractors	**311**	**2.0**	**25**	**341**	**1.5**	**23**	**405**	**2.3**	**24**	**411**	**2.4**	**30**	**+ 20.5**
	- Semi-Trailers	**435**	**2.8**	**35**	**493**	**2.2**	**34**	**818**	**4.7**	**49**	**536**	**3.1**	**39**	**+ 9.1**
	- Full Trailers	**19**	**0.1**	**2**	**59**	**0.3**	**4**	**78**	**0.5**	**5**	**124**	**0.7**	**9**	**+110.2**
	- Other	**26**	**0.2**	**2**	**22**	**0.1**	**2**	**39**	**0.2**	**2**	**16**	**0.1**	**1**	**- 19.2**
B.C. (INCLUDING YUKON AND N.W.T.)	- Total	908	9.1	100	780	6.9	100	1,044	7.7	100	1,318[1]	8.9	100	+ 70.0
	- Trucks	362	3.6	40	275	2.4	35	269	2.0	26	296	2.0	22	+ 7.6
	- Road Tractors	198	2.0	22	185	1.6	24	271	2.0	26	261	1.8	20	+ 41.1
	- Semi-Trailers	280	2.8	31	253	2.2	33	309	2.3	29	660	4.5	50	+160.9
	- Full Trailers	57	0.6	6	55	0.5	7	133	1.0	13	66	0.4	5	+ 20.0
	- Other	11	0.1	1	12	0.1	1	62	0.5	6	35	0.2	3	+191.7

* Less than 0.1%

** Less than 1%

1 YUKON and N.W.T. account for 4.5% of the total

Figures may not add due to rounding

Source: Statistics Canada, Motor Carriers of Freight and Household Goods Movers Survey. Special Tabulation based on Canadian domiciled for-hire trucking establishments (SIC Code 456) with gross revenues of $100,000 and over from freight operations in the preceding year and which had revenues >$0 from dump operations in the reported year.

Table 3

INDUSTRY TRENDS: OPERATING REVENUES AND EXPENSES ($000)

		1980			1982			1985			1987			
		Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	1987/1982 %Δ in #
CANADA	- Revenues	448.3	511.2	100	411.7	446.1	100	600.3	556.3	100	764.6	635.0	100	+ 85.7
	- Expenses	423.5	483.0	100	394.1	427.0	100	571.3	529.5	100	714.1	593.1	100	+ 81.2
	- Net	24.7	28.2	100	17.6	19.1	100	28.9	26.8	100	50.5	41.9	100	+187.0
	- Net as % of revenues			5.5			4.3			4.8			6.6	
ONTARIO	- Revenues	177.5	643.2	40	176.9	718.9	43	214.2	684.3	36	384.9	1063.2	50	+117.6
	- Expenses	170.8	618.9	40	172.0	669.1	44	199.8	638.2	35	357.3	987.1	50	+107.8
	- Net	6.7	24.3	27	4.9	19.8	28	14.4	46.1	50	27.6	76.1	55	+464.2
	- Net as % of revenues			3.8			2.8			6.7			7.2	
MANITOBA	- Revenues	36.2	717.9	8	15.0	358.1	4	76.9	1372.4	13	29.2	411.1	4	+ 94.0
	- Expenses	31.8	694.4	8	14.3	340.9	4	75.7	1352.2	13	27.7	389.8	4	+ 93.3
	- Net	3.4	68.5	14	0.7	17.3	4	1.1	20.3	4	1.5	21.3	3	+108.6
	- Net as % of revenues			9.5			4.8			1.5			5.2	
SASKATCHEWAN	- Revenues	12.5	390.8	3	10.0	278.1	2	22.4	430.0	4	17.4	328.5	2	+ 73.9
	- Expenses	11.6	362.3	3	9.1	253.6	2	22.3	428.7	4	16.1	303.0	2	+ 75.9
	- Net	0.9	29.6	4	0.9	24.6	5	*	1.3	*	1.4	25.5	3	+ 53.0
	- Net as % of revenues			7.6			8.8			0.3			7.8	
ALBERTA	**- Revenues**	**68.6**	**422.6**	**15**	**69.7**	**312.5**	**17**	**71.8**	**412.8**	**12**	**59.1**	**339.7**	**8**	**- 15.2**
	- Expenses	**63.1**	**407.0**	**15**	**65.7**	**294.7**	**17**	**69.2**	**397.7**	**12**	**55.9**	**321.0**	**8**	**- 15.0**
	- Net	**5.5**	**35.6**	**22**	**4.0**	**17.8**	**23**	**2.6**	**15.1**	**9**	**3.3**	**18.7**	**6**	**- 18.0**
	- Net as % of revenues			**8.0**			**5.7**			**3.7**			**5.5**	

Table 4

INDUSTRY TRENDS: OPERATING REVENUES AND EXPENSES ($000) (Cont'd)

		1980			1982			1985			1987			
		Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	Total ($M)	Av/ Carrier ($K)	%	1987/1982 %Δ in #
B.C. (INCLUDING YUKON AND N.W.T.)	- Revenues	67.3	572.5	15	46.3	410.1	11	66.7	494.2	11	76.4[1]	516.3	10	+ 64.9
	- Expenses	63.3	533.2	15	45.1	398.9	11	66.0	488.6	12	74.0[1]	499.8	10	+ 64.1
	- Net	3.9	39.3	16	1.3	11.2	7	0.8	5.6	3	2.4[1]	16.5	5	+279.8
	- Net as % of revenues			5.8			2.7			1.1			3.2	

* Less than $100,000 or less than 1%

1 YUKON and N.W.T. totals were: Revenues - $3.6 m; Expenses - $3.3 m; and Net - $0.3 m.

Figures may not add due to rounding

Source: Statistics Canada, Motor Carriers of Freight and Household Goods Movers Survey. Special Tabulation based on Canadian domiciled for-hire trucking establishments (SIC Code 456) with gross revenues of $100,000 and over from freight operations in the preceding year and which had revenues >$0 from dump operations in the reported year.

Table 4

REVENUE DISTRIBUTION, 1987

	CANADA		ONTARIO		MANITOBA		SASK.		ALBERTA		B.C.	
	# Carriers	%	# Carriers	%	# Carriers	%	# Carriers	%	# Carriers	%	# Carriers	%
Under $100,000	145	12	17	5	9	13	7	13	37	21	27	19
$100,000 to $149,999	209	17	64	18	7	10	12	23	40	23	29	20
$150,000 to $224,999	248	21	74	20	16	23	8	15	29	17	29	20
$225,000 to $349,999	205	17	66	18	15	21	13	25	33	19	17	12
$350,000 to $499,999	110	9	31	9	8	11	5	9	14	8	9	6
$500,000 and over	287	24	110	30	16	22	8	15	21	12	31	22
Total	1,204	100	362	100	71	100	53	100	174	100	142	100
Average ($000)	$635.0		$1,063.2		$411.1		$328.5		$339.7		$516.3	

Source: Statistics Canada, Motor Carriers of Freight and Household Goods Movers Survey. Special Tabulation based on Canadian domiciled for-hire trucking establishments (SIC Code 456) with gross revenues of $100,000 and over from freight operations in the preceding year and which had revenues >$0 from dump operations in the reported year.

Table 5

INDUSTRY TRENDS: SMALL BUSINESS SALES AND EXPENSES

		Av. Sales ($K)	Av. Expenses ($K)	Av. Net[1] ($K)	% Profit[1]	% Businesses Reporting Profit[1]
CANADA	1984	103.1	92.2	10.8	10.5	89.0
	1985	127.9	113.7	14.1	11.1	95.6
	1986	136.9	123.2	13.7	10.0	79.9
ONTARIO	1984	80.6	67.6	13.0	16.1	93.2
	1985	134.2	120.5	13.7	10.2	91.5
	1986	146.7	133.7	13.0	8.8	82.5
MANITOBA	1984	127.5	121.7	5.8	4.5	85.2
	1985	175.9	159.2	16.7	9.5	93.9
	1986	173.5	160.5	13.1	7.5	77.4
SASKATCHEWAN	1984	132.0	123.5	8.5	6.4	73.8
	1985	210.2	202.5	7.7	3.7	70.8
	1986	184.7	164.1	20.6	11.1	83.0
ALBERTA	**1984**	**83.7**	**72.9**	**10.7**	**12.8**	**86.3**
	1985	**111.9**	**95.6**	**16.3**	**14.6**	**92.8**
	1986	**131.0**	**117.9**	**13.1**	**10.0**	**70.7**
BRITISH COLUMBIA	1984	97.7	84.8	12.9	13.2	87.5
	1985	107.8	96.4	11.4	10.6	85.1
	1986	127.9	112.0	16.0	12.5	77.6

[1] Refer to Table 7 for cavetas on profitability among small operators.

Source: Statistics Canada, Small Business Profiles, 1986, Table 6. SIC 4564, Dry Bulk Materials Trucking Industry. Estimates are based on a sample of incorporated and unincorporated businesses reporting sales between $10,000 and $2,000,000.

Table 6

INDUSTRY TRENDS: PROFITABILITY AND UNDER-REPORTING OF SALARIES AND WAGES

Comparison of Operation of Small Carriers with Class 3 Companies

1986 AVERAGES		Small Carriers ($10,000 - $100,000)	Class 3 Carriers ($100,000 - $500,000)
Gross Business Income	($K)	49.2	218.7
Expenses	($K)	39.8	196.2
- Salaries and Wages	(% Exp.)	11.1%	30.1%
- Fuel and Oil	(% Exp.)	16.6%	19.3%
Net Profit	($K)	9.4	22.4
% Profit		19.1%	10.3%

Statistics Canada concludes: "Small carriers show a better operating ratio ... this is due to the fact that these small carriers are mostly unincorporated sole owners or partners and may not draw salaries, therefore the expenses tend to be underestimated.".

Source: Statistics Canada, Surface and Marine Transport, Cat. 50-002, Vol. 5, No. 1. The statistics shown above pertain to for-hire trucking carriers, all commodities.

Small Business Profiles, Canada 1986

	INDUSTRY QUARTILE BY SALES			
	Bottom ($10,000 - $35,000)	Lower-Middle ($35,000 - $71,000)	Upper-Middle ($ 71,000 - $141,000)	Top ($ 141,000 - $2,000,000)
Personnel expenses (% sales) - for the 67.6% reporting any personnel expenses	21.0%	13.7%	16.8%	21.7%
Personnel expenses (% sales) - for all businesses, assuming $0 for businesses not reporting any personnel expenses	11.2%	6.2%	12.0%	21.5%

Comments:
1. Under-reporting of salaries and wages occurs in the dry bulk materials trucking industry.
2. It is a particular problem in lower income sectors.
3. No other expense category was under-reported to the same extent as personnel expenses. The next most infrequently reported expense group was interest and bank charges at 79.7 percent, followed by depreciation at 85.6 percent.

Source: Statistics Canada, Small Business Profiles, 1986. SIC 4564, Dry Bulk Materials Trucking Industry. Estimates are based on a sample of incorporated and unincorporated businesses.

APPENDIX 2

SURVEY METHODOLOGY

CONSUMER CONTACT LIMITED

CCL# 552-89
MAY 25, 1989

TRUCKING SURVEY

QUOTA GROUP [ ]

Hello, my name is _____ and I'm working with the Coopers & Lybrand Consulting Group. We are conducting a survey of trucking companies for Alberta Transportation & Utilities.

A. Does your company do any gravel hauling for road construction, road maintenance or stockpiling purposes?

IF NO: THANK RESPONDENT AND TERMINATE. RECORD "A" ON LIST.

IF YES:

B. I must speak to the owner or manager of your company. What is his name please?

ARRANGE CALLBACK AS NECESSARY (DATE, TIME)

REINTRODUCE YOURSELF. I would like to ask you a few questions. Your responses will be kept totally confidential and analyzed statistically together with those of other truckers in the survey.

> ONLY IF NECESSARY, PROVIDE THIS EXPLANATION OF THE PURPOSE OF THE SURVEY. Alberta Transportation and Utilities is considering options relating to the minimum haul rate and local truck clauses which are being used in their road building contracts. They have hired the Coopers & Lybrand Consulting Group to undertake an evaluation of these policies. In order to do this, a variety of information is needed from the truckers themselves.

Before we begin, I'd like to get some general information on your company.

1) Overall, what is your main business? Is it ...(READ LIST) - PROBE FOR ONE ANSWER.

Farming? 1

Logging? ..... [ ] --> Do you cut and haul logs, or haul logs only?
CUT & HAUL 2
HAUL ONLY 3

Transportation? 4

Or, another type of business? 5
(SPECIFY)

_____

2) Does your company contract for entire road construction and maintenance projects, or do you only do haulage on such projects?

CONTRACT FOR ENTIRE PROJECT 1

HAULAGE ONLY 2

3) In total, how many employees does your company have? Please include yourself. (IF "VARIES" ASK FOR AVERAGE NUMBER OF EMPLOYEES)

NUMBER OF EMPLOYEES _____

4) Are you a member of a trucking industry association?

YES ..... Y---> IF YES: Which one(s)?

NO ..... N

- Alberta Road builders & Heavy Construction Association 1
- Alberta Gravel Truckers Association ... 2
- Other (SPECIFY)

_____

5a. Did your company do any gravel haulage for road construction, maintenance or stockpiling purposes in 1988? In 1987? (CIRCLE "YES" OR "NO" BELOW FOR EACH YEAR)

ASK ONLY IF NO TO BOTH YEARS: When last did you do such gravel haulage? (WRITE IN AT TOP OF LAST COLUMN BELOW)

(NOW, ASK Q5b TO 5d FOR EACH YEAR "YES" IN 5a)

	1988		1987		ASK ONLY IF NO TO BOTH 88/87 LAST YEAR DID GRAVEL HAULAGE	
5a) ANY GRAVEL HAULAGE]- Yes	Y		Y			
- No	N		N		19 _____	
5b) In (YEAR) did you do gravel haulage in:						
Summer ?	1	.....	1		1	
Winter ?	2	.....	2		2	
or, all year round	3	.....	3		3	
5c) In (YEAR) did you do gravel haulage on:	YES	NO	YES	NO	YES	NO
Alberta Transportation & Utilities Government Contracts or Projects (A.T.&.U)	1	N	1	N	1	N
Other Alberta Government provincial contracts or projects	2	N	2	N	2	N
City, municipal or county contracts or projects	3	N	3	N	3	N
Private contracts or projects ...	4	N	4	N	4	N
5d) (IF "A.T.&.U" - CODE 1 IN Q.5c) Was your hauling on Alberta Transportation & Utilities government contracts or projects in (YEAR):						
- for summer building and maintenance?.....	Y N		Y N		Y N	
- on the winter works program?.....	Y N		Y N		Y N	

IMPORTANT! - COPY "YES" ANSWERS FROM Q.5c TO FLY SHEET NOW.

6a) I am going to read you a list of different types of dump trucks. Please tell me how many vehicles of each type you have in your company, regardless of whose name they are registered in. In total, how many ... (EACH) do you have? (RECORD BELOW)

> REFER TO FLY SHEET - ASK (b) TO (e) ONLY FOR TYPES OF CONTRACTS WORKED IN Q.5c

6b) (IF WORKED ON "A.T.&.U) CONTRACTS [CODE 1] IN Q.5c)
What types of equipment did you use for **hauling gravel** on Alberta Transportation & Utilities road contracts/projects in ... (most recent year)?

6c) (IF WORKED ON OTHER ALBERTA GOVERNMENT" [CODE 2] IN Q.5c)
What types of equipment did you use for **hauling gravel** on Other Alberta Government Road Contracts/Projects in ... (most recent year)?

6d) (IF "CITY/MUNICIPAL/COUNTY" [CODE 3] IN Q.5c)
What types of equipment did you use for **hauling gravel** on City, municipal or county Contracts/Projects in ... (most recent year)?

6e) (IF "PRIVATE" [CODE 4] IN Q.5c)
What types of equipment did you use for **hauling gravel** on Private Contracts/Projects in ... (most recent year)?

	(6a) NUMBER OF TRUCKS	(6b) A.T.&.U.	(6c) OTHER ALTA GOVT.	(6d) CITY, MUN. CNTY	(6e) PRIVATE
- Single axle dump trucks	_____	1	1	1	1
- Tandem axle dump trucks	_____	2	2	2	2
- Tandem and pups	_____	3	3	3	3
- Tandem and wagons (tandem tri-axle / tandem quad axle).	_____	4	4	4	4
- Highway tractor and end dumps (tandem end dump/other axle end dump)	_____	5	5	5	5
- Any other types? (SPECIFY)....					
_____	_____	[ ]	[ ]	[ ]	[ ]
_____	_____	[ ]	[ ]	[ ]	[ ]

6f) Besides gravel, what other types of goods or products does your Company haul?

_____

_____

_____

7a) How important is gravel haulage to your company: (READ LIST)

7b) (ASK ONLY IF WORKED ON "A.T.&.U" [CODE 1] IN Q.5c)
And how important is gravel haulage on Alberta Transportation & Utilities projects to your company: (READ AS Q.7a)

	7a OVERALL	7b A.T.&.U.
Of minor importance	1	1
Of some importance	2	2
Very important	3	3
Or, your business could not survive without it?	4	4

	1988	1987	LAST YEAR DID GRAVEL HAULAGE (IF NOT 88/87) 19 _____
8a) (ASK FOR EACH APPLICABLE YEAR FROM Q.5a) In _____(YEAR) what percentage of your total Business Sales revenues from all sources were:			
- from gravel hauling?	_____%	_____%	_____%
- from other sources?	_____%	_____%	_____%
(CHECK IT ADDS TO 100%)	100%	100%	100%

	1988	1987	LAST YEAR
-b) (ASK FOR EACH APPLICABLE YEAR, IF HAULED FOR 2 OR MORE GROUPS IN Q.5c) Just thinking of your Sales revenues from gravel hauling, what percentage were from:			
Alberta Transportation & Utilities Government Contracts or Projects (A.T.&.U)	_____%	_____%	_____%
Other Alberta Government provincial contracts or projects	_____%	_____%	_____%
City, municipal or county contracts or projects	_____%	_____%	_____%
Private contracts or projects ...	_____%	_____%	_____%
(CHECK IT ADDS TO 100%) ..	100 %	100 %	100 %

9a) IF DO ANY A.T.&.U. WORK IN Q.5c ASK Q. 9a&b. OTHERS SKIP TO Q.9c:
What are your reasons for doing gravel haulage on Alberta Transportation & Utilities road building, maintenance and stockpiling projects? What are the advantages or benefits? PROBE?

_____

_____

_____

_____

_____

9b) What are the disadvantages or problems? PROBE?

_____

_____

_____

_____

_____

NOW SKIP TO Q.10

9c) IF DON'T DO A.T.&.U. WORK ASK:
Why does your company not do gravel haulage on Alberta Transportation & Utilities road building, maintenance and stockpiling projects? PROBE?

_____

_____

_____

_____

_____

10a) Most highway construction contracts signed with Alberta Transportation & Utilities have three requirements.

Firstly, a LOCAL TRUCK CLAUSE, which states that, when possible, 50% of the truckers are to be hired from within a boundary specified by the provincial contract.

Did you know about or had you heard of this requirement?

YES ..... Y

NO ..... N

10b) Secondly, there is the THREE TRUCK CLAUSE, whereby individual truck owners are not permitted to provide more than three trucks on any one provincial contract.

Did you know about or had you heard of this requirement?

YES ..... Y

NO ..... N

10c) Thirdly, the contract specifies a MINIMUM HAUL RATE - a prescribed minimum payment covering a basic loading factor plus haul rate to be paid by the contractor to truckers hauling granular and excavation material. Truck brokers may not be used to hire truckers and the contractor's administrative costs may not be charged to the truckers.

Did you know about or had you heard of this requirement?

YES ..... Y

NO ..... N

11a) Why do you think the Local Truck Clause, the Three Truck Clause and the Minimum Haul Rate are specified in provincial contracts? What is their purpose? PROBE?

_____

_____

_____

11b) What is your opinion of each of these requirements? (RECORD COMMENTS FOR EACH SEPARATELY)

LOCAL TRUCK CLAUSE _____

_____

_____

_____

THREE TRUCK CLAUSE _____

_____

_____

_____

MINIMUM HAUL RATE _____

_____

_____

_____

12a) If the **Local Truck Clause** were eliminated, what effect would it have on you?

_____

_____

_____

12b) How would you react, and what would you do if the **Local Truck Clause** were eliminated?

_____

_____

_____

13a) If the **Three Truck Clause** were eliminated, what effect would it have on you?

_____

_____

_____

13b) How would you react, and what would you do if the **Three Truck Clause** were eliminated?

_____

_____

_____

14a) If the **Minimum Haul Rate** were eliminated, what effect would it have on you?

_____

_____

_____

14b) How would you react, and what would you do if the **Minimum Haul Rate** were eliminated?

_____

_____

_____

15) (IF CHANGES, BUYING OR SELLING OF TRUCKS OR OTHER EQUIPMENT NOT MENTIONED IN Q.12,Q.13 OR Q.14 ABOVE)
Would reduction or elimination of any of these requirements result in a change in the equipment you operate? In what way?

_____

_____

_____

16) - READ INTRODUCTION

16a) "I have a few last questions to ask you.

In order that Alberta Transportation and Utilities can fully understand and evaluate the impact of any changes to the three conditions we just discussed, we need to obtain general financial information about companies that haul gravel.

This will be treated totally confidentially by Coopers & Lybrand and your particular answers will not be supplied to Alberta Transportation. We put your answers together with those of other truck operators and present these as tables of grouped statistics, only".

16b) First, what was your company's total sales revenue, from all sources, in 1988? An approximate figure will be fine. And in 1987? (BE SURE TO RECORD CORRECT NUMBER "0's")

	TOTAL SALES	REFUSED	DON'T KNOW
1988 $	_____	R	?
1987 $	_____	R	?

IF $ SALES GIVEN FOR BOTH 88 AND 87, SKIP TO Q.17.

IF SALES GIVEN FOR 88 ONLY SKIP TO Q.16-d
IF SALES GIVEN FOR 87 ONLY SKIP TO Q.16-c

NOTE: By "Sales Revenue" we mean gross sales, or gross income - the total amount charged to all customers before expenses and salaries.

16b) (IF REFUSED/DK TO BOTH 88 AND 87)
It would help us greatly if you could indicate the general range of your total sales.

In 1988 was your total sales revenue from all sources:

Under $100,000 ? .... 1 ---> Was it under or over $50,000 ? ..... UNDER..1 OVER...2

Between $100,000 and $350,000 ? ..... 2 ---> Was it under or over $225,000 ? ..... UNDER..3 OVER...4

or over $350,000 ? .. 3 ---> Was it under or over over $500,000 ? ... UNDER..5 OVER...6

REFUSED ..... R
DON'T KNOW ..... ?

REFUSED ..... R
DON'T KNOW ..... ?

SKIP TO Q.18, RECORD NAME & ADDRESS, TERMINATE AND CIRCLE "RR"-DOES NOT COUNT TOWARDS QUOTA.

NOW, CONTUNUE AT Q.16d

16c) (IF 1987 IS GIVEN BUT NOT 1988:)
Will your 1988 revenues be higher or lower than 1987 or will they be the same?

HIGHER 1
LOWER ..... 2 ---> By what percentage will they be (higher/lower)? _____ %
SAME ..... 3 (NOW SKIP TO Q.17)

16d) (IF 1988 IS GIVEN BUT NOT 1987:)
Were your 1987 revenues higher or lower than 1988 or were they the same?

HIGHER 1
LOWER ..... 2 ---> By what percentage were they (higher/lower)? _____ %
SAME 3

17a) And what were the total operating costs of your company, before tax, in .. (1988, 1987)?

TOTAL OPERATING COSTS

1988 _____

1987 _____

NOTE: By Operating Costs we mean the total of all wages & salaries and business expenses.

IF DON'T KNOW TO ANY
Can we call you back for this information later?
(RECORD DETAILS)

_____

_____

_____

17b) What proportion of your expenses are fixed costs such as rent, utilities, insurance, depreciation and administration, and what proportion are variable costs such as wages, fuel, repair and maintenance? (MUST ADD TO 100%)

	% OF EXPENSES
FIXED COSTS	_____ %
VARIABLE COSTS	_____ %
(MUST ADD TO 100%)	100%

IF DON'T KNOW
Can we call you back for this information later?
(RECORD DETAILS)

_____

_____

18. RECORD ACCURATELY!
RESPONDENTS NAME _____

POSITION _____

COMPANY _____

PHONE NUMBER _____

IMPORTANT! - COPY FROM LIST: POSTAL CODE ___ ___ ___ - ___ ___ ___

IDENTICODE ___ ___ ___ ___ ___

"I hereby certify that this interview was conducted according to the questionnaire and instructions for this study and that the answers are as given to me by this respondent.

I also realize that a proportion of my work will be checked back for verification."

DATE _____ INTERVIEWER'S NAME - PLEASE PRINT _____ INTERVIEWERS SIGNATURE _____

FLY SHEET

Q.5c - Did gravel haulage on:

	1988	1987	19____
Alberta Transportation & Utilities (A.T.&.U)	1	1	1
Other Alberta Government provincial contracts or projects	2	2	2
City, municipal or county contracts or projects	3	3	3
Private contracts or projects	4	4	4

SAMPLE FRAME

Roger Clarke, Director, Support Services, Motor Transport Services Division arranged for a computer sort of public vehicles registered in Alberta according to the following criteria:

- Classification as a Class 1 vehicle (a public vehicle licensed to haul goods for others) or a Class 2 vehicle (a public vehicle licensed to haul goods within an urban area only); and
- Met certain weight criteria relevant to the gravel trucking industry as follows:
  - a) Straight tandem axle truck: maximum carrying capacity of 21,000 - 23,000 kg; or
  - b) A-train tandem axle truck with trailer with two axles: maximum carrying capacity of 38,000 - 40,000 kg; or
  - c) Wagon-type, trailer with five axles: maximum carrying capacity of 47,000 - 50,000 kg.

The resulting lists were sorted by postal code and reviewed by Department personnel in order to eliminate companies known not to haul gravel. The Class 1 and 2 lists were then compared and duplicate listings were eliminated with the following effect:

Original Listing:	Class 1	4,111
	Class 2	3,131
	TOTAL	7,242
Less:	Duplication of Class 1 and 2	2,959
	Known non-gravel truckers	746
	TOTAL	3,705
Balance on lists:		3,537

This was followed by deletion of out-of-province addresses and, following a computer sort, further deletion of registrations which had the same home-home, business-business or home-business telephone numbers, regardless of the name of the person under which, or the address at which the truck was registered.

A few companies, identified by the associations as being large gravel haul contractors or truckers were (re)added to the list, giving a final total of 3,392 names. The regional distribution is shown as Column 1 on the Weighting Plan overleaf.

RECORD OF CONTACTS

A minimum of four attempts were made to contact 2,371 of the 3,392 names on the final list. The result of these attempts is shown in the Record of Contacts opposite. The figures demonstrate rates of co-operation at various points in the contact and interview process.

WEIGHTING PLAN

The process whereby an estimate of the size of the gravel haul industry was derived is shown in the table overleaf entitled Weighting Plan. Once this estimate was known (Column 5), a weight was calculated on the basis of the proportion of the industry represented by the sample in each region/group.

RECORD OF CONTACTS

	TOTAL	AT&U REGION 1	2	3	5	4	6	EDMONTON	CALGARY	LARGE COMPANIES
TOTAL LISTINGS ATTEMPTED	2371	199	208	370	512	234	292	300	242	14
No answer/eligible respondent not available	698	75	46	140	94	94	116	104	29	-
Refused	81	7	4	8	27	6	4	9	16	-
Language, Illness	5	2	-	-	-	-	-	-	3	-
Not in service	149	8	21	18	42	7	7	23	22	1
TOTAL CO-OPERATIVE CONTACTS	1438	107	137	204	349	127	165	164	172	13
No gravel hauling	849	67	89	128	216	71	82	81	109	6
DOES GRAVEL HAULING	589	40	48	76	133	56	83	83	63	7
Refused Interview	22	3	3	4	8	1	1	-	2	-
Refused Revenue	39	2	7	11	2	1	1	7	8	-
COMPLETED INTERVIEW	528	35	38	61	123	54	81	76	53	7
% of total listing not in services	6.3%	4.0%	10.1%	4.9%	8.2%	3.0%	2.4%	7.7%	9.1%	7.1%
% of co-operative contacts that haul gravel	41.0%	37.4%	35.0%	37.3%	38.1%	44.1%	50.3%	50.6%	36.6%	53.8%

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WEIGHTING PLAN

	AT&U REGIONS/ GROUPS	1 # in Final List	2 % in Service[1]	3 Estimated # in Service[2]	4 % Haul Gravel[1]	5 Estimated # Gravel Haulers[3]	6 Completed Interviews in Tab	7 Weight[4]
South	1	261	96.0%	251	37.4%	94	35	2.69
	2 (excluding Calgary)	264	89.9	237	35.0	83	38	2.18
	3	468	95.1	445	37.3	166	61	2.72
N. Central	5 (excluding Edmonton)	769	91.8	706	38.1	269	123	2.19
North	4	398	97.0	386	44.1	170	54	3.15
	6	595	97.6	581	50.3	292	81	3.60
Edmonton		374	92.3	345	50.6	175	76	2.30
Calgary		249	90.9	226	36.6	83	53	1.57
Large Companies		14	92.9	13	53.8	7	7	1.00
		3392		3190		1339	528	

1 From Record of Contacts
2 Column 1 x Column 2
3 Column 3 x Column 4
4 Column 5 ÷ Column 6

APPENDIX 3

REPRESENTATIVENESS OF THE SAMPLE USED IN THE IMPACT MODEL

Table 1

COMPARISON OF 1988 FINANCIAL DATA REPORTED IN SURVEY WITH ESTIMATES FROM THE SUB-SAMPLE USED IN THE MODEL

	TOTAL SAMPLE REPORTING	SUB-SAMPLE IN MODEL
AVERAGE REVENUES		
Total, all sources ($000)	427 ± 160	351
Sample Size	518*	418
Gravel haul ($000)	124 ± 33	112
Sample Size	492	418
Other sources ($000)	315 ± 142	238
Sample Size	495	418
AT&U ($000)	43 ± 19	42
Sample Size	492	418
Other provincial government ($000)	6 ± 3	6
Sample Size	492	418
Municipalities ($000)	51 ± 14	45
Sample Size	492	418
Private contracts ($000)	24 ± 10	19
Sample Size	492	418
AVERAGE EXPENSES		
Total, before tax ($000)	302 ± 146	279
Sample Size	437*	418
Fixed costs ($000)	81 ± 31	78
Sample Size	426*	418
Variable costs ($000)	224 ± 127	201
Sample Size	426*	418
EARNINGS/PROFITS		
Total ($000)	72 ± n.a.	71
Sample Size	426*	418

* Includes up to 18 respondents who did not haul gravel in 1988.
n.a. - not available

REPRESENTATIVENESS OF THE SAMPLE USED IN THE IMPACT MODEL

418 of the 518 gravel haul truckers interviewed in the survey had hauled gravel in 1988 and provided complete information on revenues (total from all sources, percentage from gravel hauling and other sources), expenses (total costs, percentage fixed and variable) and gravel haul customers (percentage from AT&U, other provincial government departments, municipalities and private contracts).

Average operator revenues and expenses for the sub-sample used in the model are compared with estimates based on all reporting operators in Table 1 opposite, along with the confidence interval at the 95% level of confidence. The number of operators reporting each item varies.

Comparison of the two data sets indicates that they are not significantly different from one another.

MODELS OF MINIMUM-WEIGHT NOT [illegible]

WEIGHT REVENUE STRUCTURE IN TERMS OF: Total Revenues
ANALYSIS OF RATE REDUCTION OF: 40%

SIZE RANGE:	MORE THAN	0	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	TOTAL ALL
	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000		
GRAVEL SALES											
ATU		3,846	6,640	14,042	12,863	21,991	7,481	23,545	28,780	111,811	25,249
OTHER GOV'T		468	1,576	2,801	2,927	3,807	0	15,159	9,567	26,313	6,115
MUNICIPAL		4,195	7,518	12,077	14,565	16,440	15,457	11,334	9,000	70,376	18,913
PRIVATE		4,690	9,575	19,497	28,869	20,714	38,828	54,432	119,266	206,379	45,224
TOTAL GRAVEL		12,399	25,312	48,639	59,224	62,952	61,685	104,470	166,532	414,879	95,500
OTHER REVENUE		7,400	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL REVENUE		19,800	41,261	66,134	98,988	126,594	164,721	183,192	207,162	1,903,772	333,790
BASE CASE TOTAL REV		21,839	45,688	75,495	107,564	141,255	169,655	198,889	226,295	1,977,780	350,622
RATE CHANGE IMPACT PER CARRIER		(2,031)	(4,427)	(9,361)	(8,575)	(14,661)	(4,934)	(15,697)	(19,133)	(74,007)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(218,721)	(1,969,288)	(2,519,499)	(1,248,228)	(1,168,468)	(167,188)	(751,560)	(189,859)	(14,161,267)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS		1	1	2	2	3	3	3	5	6	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		10,861	20,656	30,273	30,255	25,114	23,362	30,986	37,007	69,204	42,113
NUMBER OF RESPONDENTS		34	142	85	44	23	11	16	2	61	418
WEIGHTED FOR SAMPLE POPULATION		104	449	269	146	80	34	48	6	191	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL REVENUES

	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	240,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		12,399	25,312	48,639	59,224	62,952	61,685	104,470	166,532	414,879	95,500
OTHER HAUL		7,400	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL		19,800	41,261	66,134	98,988	126,594	164,721	183,192	207,162	1,903,772	333,790
VARIABLE COSTS:											
ATU GRAVEL HAUL		982	2,298	6,196	4,993	8,788	3,748	11,499	20,321	66,923	13,437
OTHER GRAVEL HAUL		3,421	7,444	14,326	16,624	16,283	28,671	46,366	99,963	176,714	36,830
OTHER HAUL		4,101	6,072	7,228	18,314	28,264	42,343	38,394	29,558	914,256	142,848
TOTAL		8,503	15,814	27,750	39,930	53,255	74,762	96,260	149,842	1,157,892	192,315
FIXED COSTS		5,750	11,931	17,618	31,259	42,353	47,019	65,632	54,463	415,638	77,852
TOTAL OPERATING COSTS		14,253	27,745	45,569	71,189	95,609	121,782	161,891	204,305	1,573,531	270,168
EARNINGS*		5,554	13,517	20,565	27,799	30,986	42,940	21,301	2,857	330,242	63,622
PERCENT OF REVENUES		28	33	31	28	24	26	12	1	17	19
BASE CASE EARNINGS		6,931	16,417	25,796	33,046	39,841	45,375	29,331	8,442	359,634	71,496
IMPACT PER TRUCKER		(1,376)	(2,895)	(5,230)	(5,247)	(8,855)	(2,435)	(8,031)	(5,585)	(29,392)	(7,874)
TOTAL INDUSTRY IMPACT		(142,802)	(1,300,915)	(1,407,712)	(763,785)	(705,759)	(82,471)	(384,583)	(31,837)	(5,624,129)	(10,443,835)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS IF THEY IN LIEU OF SALARY

SUMMARY OF MODELLED RATE CHANGE IMPACTS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: Total Revenue

ANALYSIS OF RATE DISTRIBUTION BY: %

SIZE RANGE:	MORE THAN	0	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	TOTAL ALL
	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000		
GRAVEL SALES											
	ATU	3,554	7,747	16,382	15,007	25,656	8,634	27,469	33,483	129,512	29,457
	OTHER GOV'T	468	1,578	3,801	2,927	3,807	0	15,159	9,567	26,313	6,115
	MUNICIPAL	4,195	7,518	12,099	14,565	16,440	15,457	11,314	9,800	78,376	18,913
	PRIVATE	4,690	9,575	19,497	28,869	20,714	38,828	54,432	119,266	286,379	45,224
	TOTAL GRAVEL	12,907	26,418	50,979	61,368	66,617	62,919	108,394	171,316	432,581	99,708
OTHER REVENUE		7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL REVENUE		20,315	42,368	68,474	101,132	130,260	165,955	187,116	211,945	1,922,274	337,998
BASE CASE TOTAL REV		21,839	45,680	75,495	107,564	141,255	169,655	198,889	226,295	1,977,780	350,622
RATE CHANGE IMPACT PER CARRIER		(1,523)	(3,320)	(7,021)	(6,432)	(10,996)	(3,700)	(11,773)	(14,350)	(55,505)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(158,041)	(1,491,966)	(1,809,624)	(936,171)	(876,351)	(125,331)	(563,670)	(81,794)	(10,620,950)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS		1	1	2	2	3	3	3	5	6	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		11,286	21,559	31,738	31,358	26,576	23,829	32,158	38,070	72,296	43,969
NUMBER OF RESPONDENTS		34	142	85	44	23	11	16	2	61	418
WEIGHTED FOR SAMPLE POPULATION		184	449	269	146	80	34	48	6	191	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL REVENUES

	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	240,000	TOTAL ALL
REVENUES:											
	GRAVEL HAUL	12,907	26,418	50,979	61,368	66,617	62,919	108,394	171,316	432,581	99,708
	OTHER HAUL	7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
	TOTAL	20,315	42,368	68,474	101,132	130,260	165,955	187,116	211,945	1,922,274	337,998
VARIABLE COSTS:											
	ATU GRAVEL HAUL	1,146	2,681	7,229	5,825	10,168	4,373	13,416	23,788	78,877	15,677
	OTHER GRAVEL HAUL	3,421	7,444	14,326	16,624	16,283	28,671	46,366	99,963	176,714	36,030
	OTHER HAUL	4,101	6,072	7,228	18,314	28,264	42,343	38,394	29,550	914,256	142,848
	TOTAL	8,667	16,197	28,783	40,762	54,707	75,387	98,176	153,229	1,169,846	194,555
FIXED COSTS		5,750	11,931	17,818	31,259	42,353	47,819	65,632	54,463	415,638	77,852
TOTAL OPERATING COSTS		14,417	28,128	46,601	72,021	97,060	122,486	163,808	207,692	1,584,684	272,407
EARNINGS*		5,898	14,240	21,873	29,111	33,199	43,548	23,308	4,253	337,590	65,591
PERCENT OF REVENUES		29	34	32	29	25	26	12	2	18	19
BASE CASE EARNINGS		6,931	16,412	25,796	33,846	39,841	45,375	29,331	8,442	359,654	71,496
IMPACT PER TRUCKER		(1,033)	(2,171)	(3,923)	(3,935)	(6,641)	(1,826)	(6,023)	(4,189)	(22,044)	(5,906)
TOTAL INDUSTRY IMPACT		(107,102)	(975,666)	(1,055,784)	(572,779)	(529,319)	(61,854)	(288,377)	(23,878)	(4,218,846)	(7,832,875)

* INCLUDES BOTH OWNERSHIP TRUCKS AND OWNERS
WITHOUT TO SELF DRIVE, TO DRAW IN LIEU OF SALARY

ANALYSIS OF RATE BENEFIT HAUL INDUSTRY

REVENUE REVENUE STRUCTURE OF CARRIERS BY: TOTAL REVENUES
ANALYSIS OF RATE REDUCTION OF: 10%

SORT RANGE:	MORE THAN	0	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	TOTAL ALL
	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000		
GRAVEL SALES											
ATU		4,062	8,854	18,723	17,151	29,522	9,868	31,393	38,266	148,814	33,665
OTHER GOV'T		468	1,578	3,081	2,927	3,887	0	15,159	9,567	26,313	6,115
MUNICIPAL		4,195	7,516	12,099	14,565	16,440	15,457	11,334	9,800	78,376	18,913
PRIVATE		4,690	9,575	19,497	28,869	28,714	38,828	54,432	119,266	206,379	45,224
TOTAL GRAVEL		13,415	27,525	53,320	63,512	78,282	64,152	112,319	176,899	451,883	103,916
OTHER REVENUE		7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL REVENUE		20,823	43,475	70,814	103,276	133,925	167,188	191,040	216,728	1,940,776	342,206
BASE CASE TOTAL REV		21,839	45,688	75,495	107,564	141,255	169,655	198,889	224,295	1,977,700	350,622
RATE CHANGE IMPACT PER CARRIER		(1,015)	(2,213)	(4,681)	(4,288)	(7,330)	(2,467)	(7,848)	(9,567)	(37,084)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(105,360)	(994,644)	(1,259,758)	(624,114)	(584,234)	(83,554)	(375,708)	(54,529)	(7,080,633)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS		1	1	2	2	3	3	3	5	6	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		11,750	22,462	33,186	32,446	28,038	24,297	33,314	39,133	75,380	45,825
NUMBER OF RESPONDENTS		34	142	85	44	23	11	16	2	61	418
WEIGHTED FOR SAMPLE POPULATION		104	449	269	146	80	34	48	6	191	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL REVENUES

	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	240,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		13,415	27,525	53,320	63,512	78,282	64,152	112,319	176,899	451,883	103,916
OTHER HAUL		7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL		20,823	43,475	70,814	103,276	133,925	167,188	191,040	216,728	1,940,776	342,206
VARIABLE COSTS:											
ATU GRAVEL HAUL		1,389	3,864	8,262	6,657	11,611	4,998	15,332	27,895	89,231	17,916
OTHER GRAVEL HAUL		3,421	7,444	14,326	16,624	16,283	20,671	46,346	99,963	176,714	36,038
OTHER HAUL		4,181	6,872	7,228	18,314	28,264	42,343	38,394	29,550	914,256	142,040
TOTAL		8,831	16,579	29,816	41,595	56,158	76,012	100,093	156,616	1,180,200	196,794
FIXED COSTS		5,750	11,931	17,818	31,259	42,353	47,819	65,632	54,463	415,638	77,852
TOTAL OPERATING COSTS		14,581	28,511	47,634	72,853	98,511	123,831	165,724	211,079	1,595,838	274,647
EARNINGS*		6,242	14,964	23,180	30,423	35,413	44,157	25,316	5,649	344,938	67,559
PERCENT OF REVENUES		30	34	33	29	26	26	13	3	18	20
BASE CASE EARNINGS		6,931	16,412	25,796	37,046	39,641	45,375	29,331	8,442	359,634	71,496
IMPACT PER TRUCKER		(688)	(1,448)	(2,615)	(2,623)	(4,228)	(1,217)	(4,015)	(2,793)	(14,696)	(3,937)
TOTAL INDUSTRY IMPACT		(71,481)	(650,458)	(703,856)	(381,852)	(352,879)	(41,236)	(192,251)	(15,919)	(2,812,864)	(5,221,917)

* INCLUDES BOTH OWNER PROFITS AND EARNINGS
ATTRIBUTED TO OWNERS TO DRAW INCOME OF SOURCE

ANALYSIS OF [illegible] AND INDUSTRY

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: TOTAL REVENUES
ANALYSIS OF RATE REDUCTION OF: 10%

SORT RANGE:	MORE THAN	0	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	TOTAL ALL
	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000		
GRAVEL SALES											
ATU		4,569	9,961	21,863	19,295	32,987	11,101	35,318	43,049	166,516	37,073
OTHER GOV'T		468	1,578	3,881	2,927	3,807	0	15,159	9,567	26,313	6,115
MUNICIPAL		4,195	7,518	12,899	14,565	16,440	15,457	11,334	9,000	70,376	18,913
PRIVATE		4,690	9,575	19,497	28,869	20,714	38,828	54,432	119,266	206,379	45,224
TOTAL GRAVEL		13,923	28,632	55,660	65,655	73,947	65,386	116,243	180,882	469,585	108,125
OTHER REVENUE		7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL REVENUE		21,331	44,582	73,155	105,420	137,590	168,421	194,964	221,512	1,959,278	346,414
BASE CASE TOTAL REV		21,839	45,688	75,495	107,564	141,255	169,655	198,889	226,295	1,977,700	350,622
RATE CHANGE IMPACT PER CARRIER		(508)	(1,107)	(2,340)	(2,144)	(3,665)	(1,233)	(3,924)	(4,783)	(18,502)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(52,688)	(497,322)	(629,875)	(312,057)	(292,117)	(41,777)	(187,898)	(27,265)	(3,548,317)	(5,501,308)
AVG NUMBER OF GRAVEL TRUCKS		1	1	2	2	3	3	3	5	6	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		12,195	23,365	34,643	33,541	29,588	24,764	34,478	48,196	78,480	47,688
NUMBER OF RESPONDENTS		34	142	85	44	23	11	16	2	61	418
WEIGHTED FOR SAMPLE POPULATION		184	449	269	146	88	34	48	6	191	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL REVENUES

	MAX	30,000	60,000	90,000	120,000	150,000	180,000	210,000	240,000	240,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		13,923	28,632	55,660	65,655	73,947	65,386	116,243	180,882	469,585	108,125
OTHER HAUL		7,408	15,950	17,495	39,765	63,643	103,036	78,722	40,630	1,489,693	238,290
TOTAL		21,331	44,582	73,155	105,420	137,590	168,421	194,964	221,512	1,959,278	346,414
VARIABLE COSTS:											
ATU GRAVEL HAUL		1,473	3,447	9,295	7,490	13,863	5,622	17,249	38,482	180,384	28,156
OTHER GRAVEL HAUL		3,421	7,444	14,326	16,624	16,293	28,671	46,366	99,963	176,714	36,838
OTHER HAUL		4,101	6,072	7,228	18,314	28,264	42,343	38,394	29,558	914,256	142,040
TOTAL		8,994	16,962	30,849	42,427	57,618	76,637	102,009	168,003	1,191,354	199,034
FIXED COSTS		5,750	11,931	17,818	31,259	42,353	47,019	65,632	54,463	415,638	77,852
TOTAL OPERATING COSTS		14,744	28,894	48,667	73,686	99,963	123,656	167,641	214,466	1,606,992	276,886
EARNINGS*		6,587	15,688	24,488	31,734	37,627	44,766	27,324	7,046	352,286	69,528
PERCENT OF REVENUES		31	35	33	30	27	27	14	3	18	20
BASE CASE EARNINGS		6,931	16,41[illegible]	2[illegible]	33,046	39,841	45,375	29,331	8,442	359,634	71,496
IMPACT PER TRUCKER		(344)	(724)	(1,389)	(1,312)	(2,214)	(609)	(2,008)	(1,396)	(7,348)	(1,969)
TOTAL INDUSTRY IMPACT		(35,781)	(325,[illegible]29)	(351,9[illegible]0)	(190,926)	(176,448)	(20,618)	(96,126)	(7,959)	(1,486,852)	(2,618,959)

* [illegible] NON-[illegible] PROFITS AND INTERESTS
[illegible] TO [illegible] INCOME OF [illegible]

ANALYSIS OF MONTHLY GRAVEL HAUL INCOME

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: Total Gravel Haul Revenues

ANALYSIS OF RATE REDUCTION OF: 40%

SIZE RANGE:	MORE THAN	0	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	TOTAL ALL
	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000		
GRAVEL SALES											
ATU		2,078	4,745	8,953	13,000	17,304	19,888	24,737	25,755	131,593	25,249
OTHER GOV'T		383	991	1,934	3,364	1,462	6,033	1,438	9,288	34,888	6,115
MUNICIPAL		1,658	4,691	6,979	12,459	14,325	21,874	22,893	22,557	86,465	18,913
PRIVATE		2,987	10,338	13,669	15,550	23,940	24,463	34,640	41,631	263,626	45,224
TOTAL GRAVEL		7,019	20,756	31,535	44,373	57,031	71,458	82,909	99,238	516,492	95,500
OTHER REVENUE		41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,290
TOTAL REVENUE		48,403	59,612	94,344	204,029	184,829	88,400	318,943	413,784	1,811,453	333,790
BASE CASE TOTAL REV		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
RATE CHANGE IMPACT PER CARRIER		(1,386)	(3,163)	(5,969)	(8,667)	(11,536)	(13,259)	(16,491)	(17,170)	(87,728)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(289,518)	(717,177)	(1,206,385)	(1,829,657)	(1,619,665)	(1,047,968)	(873,283)	(789,386)	(13,952,328)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS		1	2	1	2	2	2	4	3	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		5,820	13,618	22,216	29,000	35,826	32,496	23,501	29,756	77,203	42,113
NUMBER OF RESPONDENTS		67	72	63	63	44	23	18	14	56	418
WEIGHTED FOR SAMPLE POPULATION		289	227	202	211	140	79	53	46	159	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL GRAVEL HAUL REVENUES

	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	120,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		7,019	20,756	31,535	44,373	57,031	71,458	82,909	99,238	516,492	95,500
OTHER HAUL		41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,290
TOTAL		48,403	59,612	94,344	204,029	184,829	88,400	318,943	413,784	1,811,453	333,790
VARIABLE COSTS:											
ATU GRAVEL HAUL		832	1,411	4,315	5,295	6,235	7,955	8,678	11,365	80,812	13,437
OTHER GRAVEL HAUL		1,866	5,654	9,763	14,288	16,127	20,519	25,881	25,414	224,968	36,838
OTHER HAUL		19,456	14,847	33,799	30,096	69,138	7,742	44,121	117,356	942,631	142,848
TOTAL		22,154	21,112	47,876	49,679	91,499	36,817	78,680	154,135	1,248,404	192,315
FIXED COSTS		12,031	19,664	27,214	34,649	64,236	32,281	43,886	205,874	377,965	77,852
TOTAL OPERATING COSTS		34,185	40,776	75,090	84,328	155,735	68,298	122,566	360,009	1,626,369	270,168
EARNINGS*		14,218	18,836	19,254	119,701	29,094	20,102	196,377	53,776	185,085	63,622
PERCENT OF REVENUES		29	32	20	59	16	23	62	13	10	19
BASE CASE EARNINGS		15,849	21,859	22,346	124,838	36,474	28,057	207,883	63,369	218,938	71,496
IMPACT PER TRUCKER		(831)	(2,223)	(3,092)	(5,137)	(7,380)	(7,955)	(10,786)	(9,593)	(33,854)	(7,874)
TOTAL INDUSTRY IMPACT		(173,624)	(503,559)	(624,986)	(1,084,432)	(1,036,110)	(628,759)	(566,864)	(441,089)	(5,384,849)	(10,443,835)

* INCLUDES NON CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO ASSOCIATE IN LIEU OF SALARY

ANALYSIS OF MODERN GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: TOTAL GRAVEL HAUL REVENUES

ANALYSIS OF RATE REDUCTION BY: 0%

SORT RANGE:	MORE THAN	0	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	TOTAL ALL
	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000		
GRAVEL SALES											
ATU		2,425	5,535	10,445	15,167	20,188	23,283	28,859	30,040	153,525	29,457
OTHER GOV'T		383	991	1,934	3,364	1,462	6,833	1,430	9,280	34,080	6,115
MUNICIPAL		1,650	4,691	6,979	12,459	14,325	21,074	22,093	22,557	86,465	18,913
PRIVATE		2,987	10,330	13,669	15,558	23,940	24,463	34,640	41,631	263,626	45,224
TOTAL GRAVEL		7,365	21,547	33,027	46,548	59,915	74,773	87,032	103,523	538,424	99,700
OTHER REVENUE		41,384	38,856	62,810	159,656	127,798	16,942	236,835	314,554	1,294,962	238,298
TOTAL REVENUE		48,749	60,403	95,837	206,196	187,713	91,715	323,866	418,077	1,833,385	337,998
BASE CASE TOTAL REV		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
RATE CHANGE IMPACT PER CARRIER		(1,039)	(2,372)	(4,476)	(6,500)	(8,652)	(9,944)	(12,368)	(12,878)	(65,796)	(12,424)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(217,138)	(537,883)	(984,789)	(1,372,242)	(1,214,748)	(785,978)	(654,902)	(591,979)	(10,464,246)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS		1	2	1	2	2	2	4	3	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		6,187	14,137	23,267	30,424	37,638	34,803	24,678	31,043	80,565	43,969
NUMBER OF RESPONDENTS		67	72	63	63	44	23	16	14	56	418
WEIGHTED FOR SAMPLE POPULATION		209	227	202	211	140	79	53	46	159	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL GRAVEL HAUL REVENUES

	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	120,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		7,365	21,547	33,027	46,548	59,915	74,773	87,032	103,523	538,424	99,700
OTHER HAUL		41,384	38,856	62,810	159,656	127,798	16,942	236,835	314,554	1,294,962	238,298
TOTAL		48,749	60,403	95,837	206,196	187,713	91,715	323,866	418,077	1,833,385	337,998
VARIABLE COSTS:											
ATU GRAVEL HAUL		971	1,646	5,034	6,178	7,274	9,281	10,125	13,259	94,201	15,677
OTHER GRAVEL HAUL		1,866	5,654	9,763	14,288	16,127	20,319	25,001	25,414	224,960	36,030
OTHER HAUL		19,456	14,047	33,799	30,096	69,138	7,702	44,121	117,356	942,631	142,848
TOTAL		22,293	21,347	48,595	50,562	92,538	37,303	80,127	156,079	1,261,873	194,555
FIXED COSTS		12,031	19,664	27,214	34,649	64,236	32,281	43,086	205,874	377,965	77,852
TOTAL OPERATING COSTS		34,323	41,011	75,810	85,210	156,774	69,624	124,012	361,983	1,639,837	272,407
EARNINGS*		14,426	19,392	20,027	120,985	30,939	22,091	199,854	56,174	193,548	65,591
PERCENT OF REVENUES		30	32	21	59	16	24	62	13	11	19
BASE CASE EARNINGS		15,849	21,059	22,346	124,838	36,474	28,057	207,083	63,369	218,938	71,496
IMPACT PER TRUCKER		(623)	(1,667)	(2,319)	(3,853)	(5,535)	(5,966)	(8,829)	(7,195)	(25,390)	(5,906)
TOTAL INDUSTRY IMPACT		(130,218)	(377,978)	(466,740)	(813,324)	(777,082)	(471,569)	(425,148)	(330,756)	(4,038,867)	(7,832,875)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF MODELING GRAVEL HAUL TRUCKS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: TOTAL GRAVEL HAUL REVENUES
ANALYSIS OF RATE REDUCTION OF: .0%

SORT RANGE: MORE THAN / MAX	0 / 15,000	15,000 / 30,000	30,000 / 45,000	45,000 / 60,000	60,000 / 75,000	75,000 / 90,000	90,000 / 105,000	105,000 / 120,000	120,000	TOTAL ALL
GRAVEL SALES										
ATU	2,771	6,326	11,937	17,334	23,072	26,517	32,982	34,340	175,457	33,665
OTHER GOV'T	303	991	1,934	3,364	1,462	6,033	1,438	9,288	34,808	6,115
MUNICIPAL	1,650	4,691	6,979	12,459	14,325	21,074	22,893	22,557	86,465	18,913
PRIVATE	2,987	10,330	13,669	15,558	23,940	24,463	34,640	41,631	263,626	45,224
TOTAL GRAVEL	7,711	22,338	34,519	48,706	62,799	78,088	91,154	107,816	560,356	103,916
OTHER REVENUE	41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,298
TOTAL REVENUE	49,096	61,194	97,329	208,362	190,597	95,029	327,189	422,369	1,855,318	342,206
BASE CASE TOTAL REV	49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,102	350,622
RATE CHANGE IMPACT PER CARRIER	(693)	(1,582)	(2,984)	(4,333)	(5,768)	(6,629)	(8,246)	(8,585)	(43,864)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(144,759)	(358,588)	(603,192)	(914,828)	(889,852)	(523,988)	(436,602)	(394,653)	(6,976,164)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS	1	2	1	2	2	2	4	3	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	6,395	14,655	24,319	31,841	39,450	35,510	25,838	32,331	83,847	45,825
NUMBER OF RESPONDENTS	67	7[illegible]	63	63	44	23	16	14	56	418
WEIGHTED FOR SAMPLE POPULATION	209	227	202	211	140	79	53	46	159	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL GRAVEL HAUL REVENUES

MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	120,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	7,711	22,338	34,519	48,706	62,799	78,088	91,154	107,816	560,356	103,916
OTHER HAUL	41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,298
TOTAL	49,096	61,194	97,329	208,362	190,597	95,029	327,189	422,369	1,855,318	342,206
VARIABLE COSTS:										
ATU GRAVEL HAUL	1,189	1,881	5,753	7,860	8,313	10,607	11,571	15,153	107,749	17,916
OTHER GRAVEL HAUL	1,866	5,654	9,763	14,288	16,127	20,319	25,801	25,414	224,960	36,830
OTHER HAUL	19,456	14,047	33,799	38,896	69,138	7,742	44,121	117,356	942,631	142,048
TOTAL	22,431	21,582	49,315	51,444	93,577	38,669	81,573	157,924	1,275,341	196,794
FIXED COSTS	12,031	19,664	27,214	34,649	64,236	32,281	43,886	205,874	377,965	77,852
TOTAL OPERATING COSTS	34,462	41,246	76,529	86,093	157,813	70,950	125,459	363,797	1,653,306	274,647
EARNINGS*	14,634	19,948	20,800	122,270	32,784	24,080	201,730	58,572	202,012	67,559
PERCENT OF REVENUES	30	33	21	59	17	25	62	14	11	20
BASE CASE EARNINGS	15,049	21,059	22,346	124,838	36,474	28,057	207,083	63,369	218,938	71,496
IMPACT PER TRUCKER	(415)	(1,111)	(1,546)	(2,568)	(3,690)	(3,977)	(5,353)	(4,797)	(16,927)	(3,937)
TOTAL INDUSTRY IMPACT	(86,812)	(251,980)	(312,493)	(542,216)	(518,855)	(314,380)	(283,432)	(220,584)	(2,692,845)	(5,221,917)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO OWNER-OPERATORS FROM INVESTMENT IN GRAVEL

Analysis of Motor Carrier Impacts

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: Total Gravel Haul Revenues
ANALYSIS OF RATE REDUCTION OF: 10%

SORT RANGE:	MORE THAN	0	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	TOTAL ALL
	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000		
GRAVEL SALES											
	ATU	3,117	7,117	13,429	19,500	25,956	29,832	37,105	38,633	197,389	37,073
	OTHER GOV'T	303	991	1,934	3,364	1,462	6,833	1,438	9,288	34,000	6,115
	MUNICIPAL	1,650	4,691	6,979	12,459	14,325	21,074	22,093	22,557	86,465	18,913
	PRIVATE	2,987	10,330	13,669	15,550	23,940	24,463	34,640	41,631	263,626	45,224
	TOTAL GRAVEL	8,058	23,128	36,011	50,873	65,683	81,402	95,277	112,100	582,280	108,125
OTHER REVENUE		41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,290
TOTAL REVENUE		49,442	61,984	98,821	210,529	193,481	98,344	331,312	426,662	1,877,250	346,414
BASE CASE TOTAL REV		49,789	62,775	100,313	212,696	196,365	101,659	335,435	430,954	1,899,182	350,622
RATE CHANGE IMPACT PER CARRIER		(346)	(791)	(1,492)	(2,167)	(2,884)	(3,315)	(4,123)	(4,293)	(21,932)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(72,379)	(179,294)	(301,596)	(457,414)	(404,916)	(261,990)	(218,301)	(197,327)	(3,488,082)	(5,581,300)
AVG NUMBER OF GRAVEL TRUCKS		1	2	1	2	2	2	4	3	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		6,682	15,174	25,370	33,257	41,261	37,018	27,007	33,618	87,128	47,600
NUMBER OF RESPONDENTS		67	72	63	63	44	23	16	14	56	418
WEIGHTED FOR SAMPLE POPULATION		209	227	202	211	140	79	53	46	159	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: TOTAL GRAVEL HAUL REVENUES

	MAX	15,000	30,000	45,000	60,000	75,000	90,000	105,000	120,000	120,000	TOTAL ALL
REVENUES:											
	GRAVEL HAUL	8,058	23,128	36,011	50,873	65,683	81,402	95,277	112,100	582,280	108,125
	OTHER HAUL	41,384	38,856	62,810	159,656	127,798	16,942	236,035	314,554	1,294,962	238,290
	TOTAL	49,442	61,984	98,821	210,529	193,481	98,344	331,312	426,662	1,877,250	346,414
VARIABLE COSTS:											
	ATU GRAVEL HAUL	1,248	2,116	6,472	7,943	9,352	11,933	13,817	17,847	121,210	20,156
	OTHER GRAVEL HAUL	1,866	5,654	9,763	14,288	16,127	20,319	25,801	25,414	224,960	36,830
	OTHER HAUL	19,456	14,847	33,799	38,096	69,138	7,742	44,121	117,356	942,631	142,848
	TOTAL	22,570	21,817	50,034	52,327	94,616	39,995	83,819	159,818	1,288,810	199,834
FIXED COSTS		12,031	19,664	27,214	34,649	64,236	32,281	43,886	205,874	377,965	77,052
TOTAL OPERATING COSTS		34,601	41,481	77,248	86,975	158,852	72,275	126,985	365,691	1,666,775	276,886
EARNINGS*		14,841	20,503	21,573	123,554	34,629	26,068	204,487	60,971	210,475	69,520
PERCENT OF REVENUES		30	33	22	59	18	27	62	14	11	20
BASE CASE EARNINGS		15,849	21,059	22,346	124,838	36,474	28,057	207,883	63,369	218,938	71,496
IMPACT PER TRUCKER		(288)	(556)	(773)	(1,284)	(1,845)	(1,989)	(2,676)	(2,398)	(8,463)	(1,969)
TOTAL INDUSTRY IMPACT		(43,486)	(125,990)	(156,247)	(271,180)	(259,027)	(157,198)	(141,716)	(110,252)	(1,346,823)	(2,610,959)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF REVENUE GRAVEL HAUL [illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: ATU GRAVEL HAUL REVENUE
ANALYSIS OF RATE REDUCTION OF: 4%

SORT RANGE:	MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES											
ATU		0	2,593	9,845	15,319	21,104	27,317	33,252	39,194	213,173	25,249
OTHER GOV'T		3,318	2,175	4,240	1,934	12,983	1,302	5,962	4,500	37,471	6,115
MUNICIPAL		17,691	8,702	9,244	15,221	12,512	3,206	4,445	13,004	110,150	18,913
PRIVATE		50,097	25,985	28,143	22,932	18,210	9,300	9,665	30,935	237,138	45,224
TOTAL GRAVEL		71,106	39,455	50,672	55,405	64,800	41,126	51,324	88,513	597,939	95,500
OTHER REVENUE		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL REVENUE		257,832	121,414	101,399	119,429	181,600	380,922	89,514	119,967	2,318,608	333,790
BASE CASE TOTAL REV		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,897	2,460,723	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(1,729)	(6,030)	(10,213)	(14,069)	(18,212)	(22,168)	(26,129)	(142,115)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(725,002)	(1,044,562)	(1,251,697)	(1,007,696)	(1,392,281)	(1,253,156)	(890,842)	(14,671,960)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS		2	2	2	2	2	2	2	2	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,833	25,483	29,922	25,214	26,210	25,118	31,244	35,579	80,518	42,113
NUMBER OF RESPONDENTS		91	133	56	36	22	19	16	10	35	410
WEIGHTED FOR SAMPLE POPULATION		263	419	173	123	77	76	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: ATU GRAVEL HAUL REVENUES

	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		71,106	39,455	50,672	55,405	64,800	41,126	51,324	88,513	597,939	95,500
OTHER HAUL		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL		257,832	121,414	101,399	119,429	181,600	380,922	89,514	119,967	2,318,608	333,790
VARIABLE COSTS:											
ATU GRAVEL HAUL		0	1,857	3,400	6,112	10,899	11,340	13,730	14,317	126,519	13,437
OTHER GRAVEL HAUL		43,929	14,381	20,494	17,953	21,556	7,162	8,013	24,204	213,452	36,030
OTHER HAUL		121,017	37,934	26,333	25,823	67,467	34,672	19,075	12,589	1,196,557	142,048
TOTAL		164,946	53,292	50,227	49,888	99,922	53,182	40,818	51,110	1,536,528	192,315
FIXED COSTS		61,661	40,798	24,525	45,157	39,101	39,593	27,619	47,457	492,927	77,852
TOTAL OPERATING COSTS		226,607	94,091	74,752	95,046	139,022	92,775	68,437	98,567	2,029,455	270,168
EARNINGS*		31,225	27,323	26,647	24,384	42,586	288,146	21,077	21,401	289,153	63,622
PERCENT OF REVENUES		12	23	26	20	23	76	24	18	12	19
BASE CASE EARNINGS		31,225	28,347	30,410	30,522	49,389	298,793	34,891	37,985	346,923	71,496
IMPACT PER TRUCKER		(0)	(1,024)	(3,763)	(6,138)	(6,803)	(10,647)	(13,814)	(16,584)	(57,769)	(7,874)
TOTAL INDUSTRY IMPACT		(0)	(429,424)	(651,977)	(752,302)	(525,947)	(813,927)	(735,788)	(570,582)	(5,964,895)	(10,443,833)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO TRADE IN LIEU OF SALARY

ANALYSIS OF MIDDLE [illegible] HAUL [illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: AIG GRAVEL HAUL REVENUES

ANALYSIS OF RATE REDUCTION OF: 30%

SORT RANGE:	MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES											
ATU		0	1,025	10,552	17,873	24,621	31,870	38,794	45,726	248,701	29,457
OTHER GOV'T		3,318	2,175	4,248	1,934	12,983	1,382	3,962	4,580	37,471	6,115
MUNICIPAL		17,691	6,702	9,244	15,221	12,512	3,286	4,445	13,884	110,150	18,913
PRIVATE		50,097	25,985	28,143	22,932	18,218	9,380	9,665	38,935	237,138	45,224
TOTAL GRAVEL		71,106	39,887	52,179	57,958	68,326	45,679	56,866	95,845	633,468	99,780
OTHER REVENUE		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,298
TOTAL REVENUE		257,832	121,846	102,907	121,982	185,126	385,475	95,056	126,500	2,354,137	337,998
BASE CASE TOTAL REV		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,097	2,468,723	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(1,297)	(4,522)	(7,660)	(10,552)	(13,659)	(16,626)	(19,597)	(106,586)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(543,752)	(783,422)	(938,773)	(815,772)	(1,044,211)	(939,867)	(674,131)	(11,883,970)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS		2	2	2	2	2	2	2	2	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,833	25,762	30,812	26,376	27,633	27,899	34,618	38,285	85,302	43,969
NUMBER OF RESPONDENTS		91	133	56	36	22	19	16	10	35	418
WEIGHTED FOR SAMPLE POPULATION		263	419	173	123	77	76	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: ATU GRAVEL HAUL REVENUES

	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000	TOTAL ALL
REVENUES:											
GRAVEL HAUL		71,106	39,887	52,179	57,958	68,326	45,679	56,866	95,845	633,468	99,780
OTHER HAUL		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,298
TOTAL		257,832	121,846	102,907	121,982	185,126	385,475	95,056	126,500	2,354,137	337,998
VARIABLE COSTS:											
ATU GRAVEL HAUL		0	1,233	3,966	7,131	12,716	13,239	16,819	16,703	147,605	15,677
OTHER GRAVEL HAUL		43,929	14,381	20,494	17,953	21,556	7,162	8,813	24,284	213,452	34,830
OTHER HAUL		121,017	37,934	26,333	25,823	67,467	34,672	19,875	12,589	1,196,557	142,848
TOTAL		164,946	53,469	50,794	50,907	101,738	55,073	43,186	53,496	1,557,614	194,555
FIXED COSTS		61,661	40,798	24,525	45,157	39,101	39,593	27,619	47,457	492,927	77,852
TOTAL OPERATING COSTS		226,607	94,267	75,319	96,064	140,839	94,667	70,725	100,953	2,050,541	272,407
EARNINGS*		31,225	27,579	27,588	25,918	44,287	290,808	24,330	25,547	303,596	65,591
PERCENT OF REVENUES		12	23	27	21	24	75	26	20	13	19
BASE CASE EARNINGS		31,225	28,347	30,410	30,522	49,389	298,793	34,091	37,985	346,923	71,496
IMPACT PER TRUCKER		(0)	(768)	(2,823)	(4,604)	(5,102)	(7,985)	(9,761)	(12,438)	(43,327)	(5,986)
TOTAL INDUSTRY IMPACT		(0)	(322,868)	(488,946)	(564,227)	(394,460)	(610,445)	(551,781)	(427,077)	(4,473,071)	(7,832,875)

* INCLUDES [illegible] PROFITS AND EARNINGS AVAILABLE TO [illegible] OWNERS TO GROW IN LIEU OF [illegible]

MODELLED IN MILLIONS OF 1984 DOLLARS

AVERAGE REVENUE STRUCTURE IN CANADA BY: [illegible]
ANALYSIS OF RATE REDUCTION BY: [illegible]

SIZE RANGE:	MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES											
ATU		0	3,458	11,060	20,426	28,139	36,425	44,336	52,250	204,238	33,665
OTHER GOV'T		3,318	2,175	4,248	1,934	12,983	1,382	3,962	4,580	37,471	6,115
MUNICIPAL		17,691	6,702	9,244	15,221	12,512	3,286	4,445	13,884	110,150	18,913
PRIVATE		50,897	25,985	28,143	22,932	18,210	9,388	9,665	30,935	237,138	45,224
TOTAL GRAVEL		71,106	40,319	53,687	60,512	71,843	50,232	62,408	101,577	668,997	103,916
OTHER REVENUE		186,725	81,959	50,728	64,024	116,800	339,796	38,198	31,455	1,720,669	238,290
TOTAL REVENUE		257,832	122,278	104,414	124,536	188,643	390,027	100,598	133,032	2,389,666	342,206
BASE CASE TOTAL REV		257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,897	2,468,723	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(864)	(3,015)	(5,106)	(7,035)	(9,106)	(11,084)	(13,865)	(79,058)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(362,581)	(522,281)	(625,849)	(543,848)	(696,148)	(626,578)	(449,421)	(7,335,988)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS		2	2	2	2	2	2	2	2	3	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,553	26,841	31,782	27,538	29,855	30,688	37,992	48,838	98,886	45,825
NUMBER OF RESPONDENTS		91	133	56	36	22	19	16	18	35	418
WEIGHTED FOR SAMPLE POPULATION		263	419	173	123	77	78	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: ATU GRAVEL HAUL REVENUES

	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	71,106	40,319	53,687	60,512	71,843	50,232	62,408	101,577	668,997	103,916
OTHER HAUL	186,725	81,959	50,728	64,024	116,800	339,796	38,198	31,455	1,720,669	238,290
TOTAL	257,832	122,278	104,414	124,536	188,643	390,027	100,598	133,032	2,389,666	342,206
VARIABLE COSTS:										
ATU GRAVEL HAUL	0	1,418	4,533	8,149	14,532	15,138	18,387	19,898	168,692	17,916
OTHER GRAVEL HAUL	43,929	14,381	20,454	17,953	21,556	7,162	8,813	24,284	213,452	36,838
OTHER HAUL	121,017	37,934	26,333	25,823	67,467	34,672	19,875	12,589	1,196,557	142,840
TOTAL	164,946	53,645	51,368	51,926	103,555	56,965	45,395	55,802	1,578,701	196,794
FIXED COSTS	61,661	40,798	24,525	45,157	39,181	39,593	27,619	47,457	492,927	77,852
TOTAL OPERATING COSTS	226,607	94,443	75,885	97,083	142,655	96,558	73,014	103,339	2,071,628	274,647
EARNINGS*	31,225	27,835	28,529	27,453	45,988	293,470	27,584	29,693	318,038	67,559
PERCENT OF REVENUES	12	23	27	22	24	75	27	22	13	20
BASE CASE EARNINGS	31,225	28,347	30,410	38,522	49,389	298,793	34,891	37,985	346,923	71,496
IMPACT PER TRUCKER	(0)	(512)	(1,882)	(3,069)	(3,402)	(5,323)	(6,307)	(8,292)	(28,865)	(3,937)
TOTAL INDUSTRY IMPACT	(0)	(214,712)	(325,964)	(376,151)	(262,974)	(406,963)	(367,854)	(285,251)	(2,982,047)	(5,221,917)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
REVENUES TO SHIP OWNERS TO CROW RATIO OF [illegible]

ANALYSIS OF MIDDLE GRAVEL HAUL INDUSTRY

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: ATU GRAVEL HAUL REVENUES
ANALYSIS OF RATE REDUCTION OF: .0%

SORT RANGE:	MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES											
ATU		0	3,450	12,060	20,426	28,139	36,423	44,336	52,250	284,230	33,665
OTHER GOV'T		3,310	2,175	4,240	1,934	12,983	1,302	3,962	4,580	37,471	6,115
MUNICIPAL		17,691	8,702	9,244	15,221	12,512	3,206	4,445	13,084	110,150	10,913
PRIVATE		50,097	25,985	28,143	22,932	18,210	9,300	9,665	30,935	237,130	45,224
TOTAL GRAVEL		71,106	40,319	53,687	60,512	71,843	50,232	62,408	101,577	668,997	103,916
OTHER REVENUE		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL REVENUE		257,832	122,278	104,414	124,536	188,643	390,027	100,598	133,032	2,389,666	342,206
BASE CASE TOTAL REV		257,832	123,143	107,429	129,642	195,679	399,133	111,682	146,897	2,460,723	350,622
RATE CHANGE IMPACT PER CARRIER		(0)	(864)	(3,015)	(5,106)	(7,035)	(9,106)	(11,084)	(13,865)	(71,058)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(0)	(362,581)	(522,281)	(625,849)	(545,848)	(696,140)	(626,578)	(449,421)	(7,335,908)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS		2	2	2	2	2	2	2	2	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,833	26,841	31,702	27,538	29,855	38,600	37,992	48,038	98,806	45,825
NUMBER OF RESPONDENTS		91	133	56	36	22	19	16	18	35	410
WEIGHTED FOR SAMPLE POPULATION		263	419	173	123	77	76	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:ATU GRAVEL HAUL REVENUES

	MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000 TOTAL ALL
REVENUES:										
GRAVEL HAUL		71,106	40,319	53,687	60,512	71,843	50,232	62,408	101,577	668,997	103,916
OTHER HAUL		186,725	81,959	50,728	64,024	116,800	339,796	38,190	31,455	1,720,669	238,290
TOTAL		257,832	122,278	104,414	124,536	188,643	390,027	100,598	133,032	2,389,666	342,206
VARIABLE COSTS:											
ATU GRAVEL HAUL		0	1,410	4,533	8,149	14,532	15,130	18,387	19,890	168,692	17,916
OTHER GRAVEL HAUL		43,929	14,301	20,494	17,953	21,556	7,162	8,013	24,284	213,452	36,030
OTHER HAUL		121,017	37,934	26,333	25,823	67,467	34,672	19,075	12,589	1,196,557	142,040
TOTAL		164,946	53,645	51,360	51,926	103,555	56,965	45,395	55,082	1,578,701	196,794
FIXED COSTS		61,661	40,798	24,525	45,157	39,101	39,593	27,619	47,457	492,927	77,852
TOTAL OPERATING COSTS		226,607	94,443	75,885	97,083	142,655	96,558	73,014	103,339	2,071,628	274,647
EARNINGS*		31,225	27,835	26,529	27,453	45,988	293,470	27,584	29,693	318,038	67,559
PERCENT OF REVENUES		12	23	27	22	24	75	27	22	13	20
BASE CASE EARNINGS		31,225	28,347	30,410	30,522	47,389	298,793	34,891	37,985	346,923	71,496
IMPACT PER TRUCKER		(0)	(512)	(1,882)	(3,069)	(3,402)	(5,323)	(6,507)	(8,292)	(28,885)	(3,937)
TOTAL INDUSTRY IMPACT		(0)	(214,712)	(325,964)	(376,151)	(262,974)	(406,963)	(367,654)	(205,251)	(2,982,847)	(5,221,917)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
ADJUSTMENT TO SUCH VARIES TO SHOW IN LIEU OF [illegible]

ANALYSIS OF MODELLED GRAVEL HAUL TRUCKING

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: ATU GRAVEL HAUL REVENUES
ANALYSIS OF RATE REGULATION IN: 1984

SIZE RANGE: MORE THAN	0	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	TOTAL ALL
MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000		
GRAVEL SALES										
ATU	0	3,898	13,567	22,979	31,656	40,976	49,878	58,791	319,759	37,873
OTHER GOV'T	3,318	2,175	4,248	1,934	12,983	1,382	3,962	4,580	37,471	6,115
MUNICIPAL	17,691	8,702	9,244	15,221	12,512	3,206	4,445	13,884	110,158	18,913
PRIVATE	50,097	25,985	28,143	22,932	18,210	9,308	9,665	38,935	237,138	45,224
TOTAL GRAVEL	71,106	40,751	55,194	63,065	75,360	54,785	67,950	100,110	704,526	108,125
OTHER REVENUE	186,725	81,959	50,728	64,024	116,800	339,796	38,198	31,455	1,720,669	238,298
TOTAL REVENUE	257,832	122,710	105,922	127,089	192,160	394,580	106,148	139,564	2,425,194	346,414
BASE CASE TOTAL REV	257,832	123,143	107,429	129,642	195,678	399,133	111,682	146,897	2,460,723	350,622
RATE CHANGE IMPACT PER CARRIER	(0)	(432)	(1,507)	(2,553)	(3,517)	(4,553)	(5,542)	(6,532)	(35,529)	(4,288)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(0)	(181,251)	(261,141)	(312,925)	(271,924)	(348,878)	(313,289)	(224,710)	(3,667,998)	(5,581,380)
AVG NUMBER OF GRAVEL TRUCKS	2	2	2	2	2	2	2	2	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	35,833	26,321	32,592	28,700	38,470	33,461	41,366	43,456	94,870	47,680
NUMBER OF RESPONDENTS	91	133	56	36	22	19	16	10	35	410
WEIGHTED FOR SAMPLE POPULATION	263	419	173	123	77	76	57	34	103	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: ATU GRAVEL HAUL REVENUES

MAX	0	10,000	20,000	30,000	40,000	50,000	60,000	70,000	70,000 TOTAL ALL
REVENUES:									
GRAVEL HAUL	71,106	40,751	55,194	63,065	75,360	54,785	67,950	100,110	704,526	108,125
OTHER HAUL	186,725	81,959	50,728	64,024	116,800	339,796	38,198	31,455	1,720,669	238,298
TOTAL	257,832	122,710	105,922	127,089	192,160	394,580	106,148	139,564	2,425,194	346,414
VARIABLE COSTS:									
ATU GRAVEL HAUL	0	1,586	5,100	9,160	16,349	17,022	20,595	21,476	189,770	20,156
OTHER GRAVEL HAUL	43,929	14,301	20,494	17,953	21,556	7,162	8,013	24,284	213,452	36,838
OTHER HAUL	121,017	37,934	26,333	25,823	67,467	34,672	19,075	12,509	1,196,557	142,848
TOTAL	164,946	53,821	51,927	52,944	105,371	58,856	47,683	58,269	1,599,787	199,834
FIXED COSTS	61,661	40,798	24,525	45,157	39,101	39,593	27,619	47,457	492,927	77,052
TOTAL OPERATING COSTS	226,607	94,619	76,452	98,102	144,472	98,449	75,302	105,725	2,092,714	276,886
EARNINGS*	31,225	28,091	29,470	28,987	47,688	296,131	30,838	33,839	332,480	69,528
PERCENT OF REVENUES	12	23	28	23	25	75	29	24	14	20
BASE CASE EARNINGS	31,225	28,347	30,410	30,522	49,389	298,793	34,891	37,985	346,923	71,496
IMPACT PER TRUCKER	(0)	(256)	(941)	(1,535)	(1,701)	(2,662)	(3,254)	(4,146)	(14,442)	(1,969)
TOTAL INDUSTRY IMPACT	(0)	(107,356)	(162,962)	(188,076)	(131,487)	(205,482)	(183,927)	(142,626)	(1,491,823)	(2,618,959)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

Analysis of Alberta Gravel Haulers

AVERAGE REVENUE STRUCTURE OF CARRIERS by: Profitability of Operations
ANALYSIS OF RATE REDUCTION OF: 40%

PROFITABILITY: FROM	LESS THAN	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	TOTAL ALL
TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000		
GRAVEL SALES										
ATU	55,493	8,668	12,477	16,137	16,144	60,591	7,226	22,000	159,549	25,249
OTHER GOV'T	21,177	2,422	1,323	6,155	5,546	13,042	0	220,000	14,566	6,115
MUNICIPAL	23,240	8,640	12,227	16,447	13,912	16,449	516	19,000	129,410	18,913
PRIVATE	66,368	15,609	25,731	32,566	53,479	29,246	18,213	95,000	347,770	45,224
TOTAL GRAVEL	166,807	35,339	51,758	71,306	89,081	119,327	25,955	364,000	651,303	95,500
OTHER REVENUE	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL REVENUE	780,773	60,018	96,656	151,532	164,702	445,456	268,496	384,000	3,060,586	333,790
BASE CASE TOTAL REV	810,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
RATE CHANGE IMPACT PER CARRIER	(37,329)	(5,779)	(8,318)	(10,758)	(10,763)	(40,394)	(4,817)	(15,200)	(106,366)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(5,140,933)	(3,059,331)	(2,614,167)	(1,984,151)	(425,124)	(1,393,583)	(50,330)	(43,320)	(7,606,251)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS	3	2	2	2	3	5	2	4	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	61,145	23,176	28,971	32,336	29,626	22,718	11,170	91,200	90,001	42,113
NUMBER OF RESPONDENTS	45	178	96	57	12	11	3	1	23	410
WEIGHTED FOR SAMPLE POPULATION	138	529	314	184	40	35	12	3	72	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: PROFITABILITY OF OPERATIONS

TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	140,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	166,807	35,339	51,756	71,306	89,081	119,327	25,955	364,000	651,303	95,500
OTHER HAUL	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL	780,773	60,018	96,656	151,532	164,702	445,456	268,496	384,000	3,060,586	333,790
VARIABLE COSTS:										
ATU GRAVEL HAUL	39,828	4,330	4,554	5,635	4,129	34,350	2,294	10,189	86,262	13,437
OTHER GRAVEL HAUL	97,310	14,804	15,160	22,664	18,101	28,701	4,345	152,831	240,840	36,830
OTHER HAUL	519,263	12,420	22,759	42,502	9,570	159,162	73,512	8,937	1,238,104	142,048
TOTAL	656,401	30,654	42,473	70,800	23,809	222,221	80,151	171,957	1,564,406	192,315
FIXED COSTS	172,212	19,279	29,807	36,686	73,623	143,017	80,350	96,250	616,835	77,852
TOTAL OPERATING COSTS	828,613	50,113	72,281	107,487	97,512	365,238	160,501	268,207	2,181,242	270,168
EARNINGS*	(47,839)	9,905	24,376	44,045	67,190	80,218	107,994	116,592	879,344	63,622
PERCENT OF REVENUES	(6)	17	25	29	41	18	40	30	29	19
BASE CASE EARNINGS	(37,862)	12,797	39,657	51,847	75,199	97,706	111,282	125,000	928,202	71,496
IMPACT PER TRUCKER	(10,777)	(2,892)	(5,281)	(7,802)	(8,010)	(17,488)	(3,288)	(8,400)	(48,858)	(7,874)
TOTAL INDUSTRY IMPACT	(1,484,212)	(1,531,826)	(1,659,581)	(1,291,748)	(516,384)	(683,348)	(39,818)	(23,961)	(3,493,842)	(10,443,833)

* INCLUDES BOTH OWNERS' PROFITS AND EARNINGS
AVAILABLE TO SOLE OWNERS IN LIEU OF SALARY

ANALYSIS OF MOBILIZATION BASED RATE INCREASES

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: PROFITABILITY OF OPERATIONS

ANALYSIS OF RATE REDUCTION OF: 50%

PROFITABILITY: FROM	LESS THAN	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	TOTAL ALL
TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000		
GRAVEL SALES										
ATU	65,326	10,113	14,556	18,827	18,835	78,689	8,430	26,600	186,141	29,457
OTHER GOV'T	21,177	2,422	1,323	6,155	5,546	13,042	0	228,000	14,566	6,115
MUNICIPAL	23,248	8,640	12,227	16,447	13,912	16,449	516	19,000	129,418	10,913
PRIVATE	66,388	15,609	25,731	32,566	53,479	29,246	18,213	95,000	347,770	45,224
TOTAL GRAVEL	176,140	36,784	53,837	73,995	91,772	129,426	27,159	368,600	677,895	99,700
OTHER REVENUE	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL REVENUE	790,106	61,463	98,736	154,222	167,392	455,554	269,700	388,600	3,087,177	337,990
BASE CASE TOTAL REV	818,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
RATE CHANGE IMPACT PER CARRIER	(27,997)	(4,334)	(6,238)	(8,069)	(8,072)	(30,295)	(3,613)	(11,400)	(79,775)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(3,855,780)	(2,294,498)	(1,960,625)	(1,488,113)	(318,843)	(1,845,187)	(43,753)	(32,490)	(5,704,689)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS	3	2	2	2	3	5	2	4	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	64,566	24,124	30,135	33,556	30,521	24,641	11,600	92,150	93,759	43,969
NUMBER OF RESPONDENTS	45	170	96	57	12	11	3	1	23	418
WEIGHTED FOR SAMPLE POPULATION	130	529	314	184	40	35	12	3	72	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: PROFITABILITY OF OPERATIONS

TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	140,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	176,140	36,784	53,837	73,995	91,772	129,426	27,159	368,600	677,895	99,700
OTHER HAUL	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL	790,106	61,463	98,736	154,222	167,392	455,554	269,700	388,600	3,087,177	337,990
VARIABLE COSTS:										
ATU GRAVEL HAUL	46,466	5,852	5,313	6,574	4,818	40,085	2,676	11,887	100,639	15,677
OTHER GRAVEL HAUL	97,310	14,884	15,160	22,664	10,161	28,781	4,345	152,831	240,040	36,850
OTHER HAUL	519,263	12,430	22,759	42,582	9,528	159,162	73,512	8,937	1,238,184	147,048
TOTAL	663,039	31,556	43,233	71,740	24,577	227,948	80,533	173,656	1,578,783	194,555
FIXED COSTS	172,212	19,279	29,807	36,886	73,623	143,017	80,550	96,250	616,835	77,852
TOTAL OPERATING COSTS	835,251	50,834	73,040	108,426	98,200	370,964	160,884	269,906	2,195,619	272,407
EARNINGS*	(45,145)	10,628	25,696	45,796	69,192	84,590	108,816	118,694	891,559	65,591
PERCENT OF REVENUES	(6)	17	26	30	41	19	40	31	29	19
BASE CASE EARNINGS	(27,862)	12,797	29,557	51,847	75,199	97,706	111,282	125,000	928,202	71,496
IMPACT PER CARRIER	(18,883)	(2,169)	(3,961)	(5,251)	(6,007)	(13,116)	(2,466)	(6,306)	(36,644)	(5,906)
TOTAL INDUSTRY IMPACT	(1,113,159)	(1,148,270)	(1,244,926)	(968,511)	(237,288)	(452,505)	(29,863)	(17,971)	(2,620,381)	(7,832,875)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO REMUNERATION OF OWNERS

ANALYSIS OF MODELLED GRAVEL HAUL [illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: PROFITABILITY OF OPERATIONS

ANALYSIS OF RATE REDUCTION OF: 20%

PROFITABILITY: FROM	LESS THAN	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	TOTAL ALL
TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000		
GRAVEL SALES										
ATU	74,658	11,558	16,635	21,517	21,525	80,787	9,635	30,400	212,733	33,665
OTHER GOV'T	21,177	2,422	1,323	6,155	5,546	13,842	0	220,000	14,566	6,115
MUNICIPAL	23,240	8,640	12,227	16,447	13,912	16,449	516	19,000	129,410	18,913
PRIVATE	66,388	15,609	25,731	32,566	53,479	29,246	18,213	95,000	347,770	45,224
TOTAL GRAVEL	185,472	38,229	55,917	76,685	94,462	139,524	28,364	372,400	704,487	103,916
OTHER REVENUE	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL REVENUE	799,438	62,907	100,815	156,911	170,083	465,652	270,904	392,400	3,113,769	342,206
BASE CASE TOTAL REV	818,102	65,797	104,974	162,290	175,464	485,849	273,313	400,000	3,166,952	350,622
RATE CHANGE IMPACT PER CARRIER	(18,664)	(2,889)	(4,159)	(5,379)	(5,381)	(20,197)	(2,409)	(7,600)	(53,183)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(2,578,466)	(1,539,665)	(1,307,803)	(992,875)	(212,562)	(696,791)	(29,169)	(21,668)	(3,803,126)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS	3	2	2	2	3	5	2	4	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	67,986	25,871	31,299	34,776	31,416	26,564	12,286	93,100	97,437	45,825
NUMBER OF RESPONDENTS	45	178	96	57	12	11	3	1	23	418
WEIGHTED FOR SAMPLE POPULATION	138	529	314	184	40	35	12	3	72	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: PROFITABILITY OF OPERATIONS

TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	140,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	185,472	38,229	55,917	76,685	94,462	139,524	28,364	372,400	704,487	103,916
OTHER HAUL	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL	799,438	62,907	100,815	156,911	170,083	465,652	270,904	392,400	3,113,769	342,206
VARIABLE COSTS:										
ATU GRAVEL HAUL	53,184	5,774	6,873	7,513	5,586	45,811	3,059	13,585	115,816	17,916
OTHER GRAVEL HAUL	97,310	14,884	15,168	22,664	18,181	28,781	4,345	152,831	240,840	36,830
OTHER HAUL	519,263	12,420	22,759	42,502	9,578	159,162	73,512	8,937	1,238,184	142,848
TOTAL	669,677	32,277	43,992	72,679	25,265	233,674	80,916	175,354	1,593,160	196,794
FIXED COSTS	172,212	19,279	29,807	36,686	73,623	143,017	80,350	96,250	616,835	77,852
TOTAL OPERATING COSTS	841,889	51,556	73,799	109,365	98,889	376,691	161,266	271,604	2,209,996	274,647
EARNINGS*	(42,451)	11,351	27,017	47,546	71,194	88,962	109,638	120,796	903,773	67,559
PERCENT OF REVENUES	(5)	18	27	30	42	19	40	31	29	20
BASE CASE EARNINGS	(37,862)	12,797	29,657	51,047	75,199	97,786	111,382	125,000	928,202	71,496
IMPACT PER TRUCKER	(5,589)	(1,446)	(2,641)	(3,501)	(4,005)	(8,744)	(1,644)	(4,204)	(24,429)	(3,937)
TOTAL INDUSTRY IMPACT	(742,186)	(765,513)	(828,944)	(645,674)	(148,142)	(301,670)	(19,989)	(11,981)	(1,746,921)	(5,221,917)

* INCLUDES BOTH [illegible] PROFITS AND EARNINGS
ADJUSTED TO [illegible] VALUES IN THOUSAND DOLLARS

ANALYSIS OF MODIFICATIONS TO TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: PROFITABILITY OF OPERATIONS
ANALYSIS OF RATE REDUCTION OF: 10%

PROFITABILITY: FROM	LESS THAN	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	TOTAL ALL
TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000		
GRAVEL SALES										
ATU	83,990	13,882	18,715	24,286	24,216	90,886	10,839	34,200	239,324	37,873
OTHER GOV'T	21,177	2,422	1,323	6,155	5,546	13,842	0	220,000	14,566	6,115
MUNICIPAL	23,240	8,640	12,227	16,447	13,912	16,449	516	19,000	129,410	10,913
PRIVATE	66,380	15,689	25,731	32,566	53,479	29,246	18,213	95,000	347,770	45,224
TOTAL GRAVEL	194,884	39,673	57,996	79,374	97,153	149,623	29,568	376,200	731,070	100,125
OTHER REVENUE	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL REVENUE	808,770	64,352	102,895	159,601	172,774	475,751	272,109	396,200	3,140,361	346,414
BASE CASE TOTAL REV	818,102	65,797	104,974	162,290	175,464	405,849	273,313	400,000	3,166,952	350,622
RATE CHANGE IMPACT PER CARRIER	(9,332)	(1,445)	(2,079)	(2,690)	(2,691)	(10,898)	(1,204)	(3,800)	(26,592)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(1,285,233)	(764,833)	(653,542)	(496,838)	(186,281)	(348,396)	(14,584)	(10,830)	(1,981,563)	(5,581,380)
AVG NUMBER OF GRAVEL TRUCKS	3	2	2	2	3	5	2	4	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	71,407	26,819	32,463	35,996	32,311	28,486	12,725	94,050	101,115	47,680
NUMBER OF RESPONDENTS	45	178	96	57	12	11	3	1	23	418
WEIGHTED FOR SAMPLE POPULATION	138	529	314	184	40	35	12	3	72	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: PROFITABILITY OF OPERATIONS

TO	0	20,000	40,000	60,000	80,000	100,000	120,000	140,000	140,000	TOTAL ALL
REVENUES:										
GRAVEL HAUL	194,884	39,673	57,996	79,374	97,153	149,623	29,568	376,200	731,070	100,125
OTHER HAUL	613,966	24,679	44,898	80,226	75,621	326,128	242,541	20,000	2,409,283	238,290
TOTAL	808,770	64,352	102,895	159,601	172,774	475,751	272,109	396,200	3,140,361	346,414
VARIABLE COSTS:										
ATU GRAVEL HAUL	59,742	6,495	6,832	8,452	6,194	51,538	3,441	15,283	129,393	20,156
OTHER GRAVEL HAUL	97,310	14,884	15,160	22,664	18,181	28,701	4,345	152,831	240,840	36,850
OTHER HAUL	519,263	12,420	22,759	42,502	9,578	159,162	73,512	8,937	1,238,184	142,840
TOTAL	676,315	33,999	44,751	73,618	25,954	239,400	81,298	177,052	1,607,537	199,834
FIXED COSTS	172,212	19,279	29,807	36,686	73,623	143,017	80,350	96,250	616,835	77,052
TOTAL OPERATING COSTS	846,526	52,278	74,558	110,304	99,577	382,417	161,648	273,302	2,224,373	276,886
EARNINGS*	(39,757)	12,074	28,337	49,297	73,197	93,334	110,460	122,898	915,988	69,528
PERCENT OF REVENUES	(5)	19	28	31	42	20	41	31	29	20
BASE CASE EARNINGS	(37,862)	12,797	29,657	51,047	75,199	97,706	111,282	125,000	928,202	71,496
IMPACT PER TRUCKER	(2,694)	(723)	(1,320)	(1,750)	(2,002)	(4,372)	(822)	(2,102)	(12,215)	(1,969)
TOTAL INDUSTRY IMPACT	(371,853)	(382,556)	(414,975)	(322,837)	(79,896)	(150,835)	(9,954)	(5,990)	(873,461)	(2,610,959)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO OWNER IN LIEU OF SALARY

[illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF GRAVEL TRUCKS
AMOUNTS OF RATE REDUCTION OF: 40%

NUMBER OF TRUCKS:	MORE THAN	0	1	3	6	10	0	3	
	UP TO	1	3	6	10		3		TOTAL ALL
GRAVEL SALES									
	ATU	9,038	21,788	31,966	67,054	580,293	12,946	97,496	25,249
	OTHER GOV'T	3,032	7,818	12,075	9,220	46,798	4,499	15,571	6,115
	MUNICIPAL	8,726	16,022	15,092	63,323	341,100	10,963	65,674	10,913
	PRIVATE	15,019	33,628	68,792	368,833	524,684	20,722	189,434	45,224
	TOTAL GRAVEL	35,815	79,256	119,925	508,430	1,420,875	49,129	368,174	95,500
OTHER REVENUE		47,758	283,492	501,507	453,311	4,203,790	120,007	934,000	238,290
TOTAL REVENUE		83,573	362,748	621,432	961,741	5,624,666	169,135	1,303,855	333,790
BASE CASE TOTAL REV		89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
RATE CHANGE IMPACT PER CARRIER		(6,025)	(14,525)	(21,311)	(44,703)	(338,862)	(8,638)	(64,997)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(4,728,944)	(5,037,990)	(2,642,310)	(2,039,789)	(7,840,841)	(9,766,934)	(12,538,148)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS		1	2	5	8	21	1	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		35,815	34,137	26,279	62,177	68,755	34,965	58,869	42,113
NUMBER OF RESPONDENTS		243	189	38	16	11	352	65	410
WEIGHTED FOR SAMPLE POPULATION		785	347	124	46	23	1,132	193	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF GRAVEL TRUCKS

UP TO	1	3	6	10		3	0 TOTAL ALL	
REVENUES:								
GRAVEL HAUL	35,815	79,256	119,925	508,430	1,420,875	49,129	368,174	95,500
OTHER HAUL	47,758	283,492	501,507	453,311	4,203,790	120,007	934,000	238,290
TOTAL	83,573	362,748	621,432	961,741	5,624,666	169,135	1,303,855	333,790
VARIABLE COSTS:								
ATU GRAVEL HAUL	3,287	12,199	14,224	29,195	341,229	6,818	57,853	13,437
OTHER GRAVEL HAUL	11,483	32,358	45,383	196,317	605,689	17,079	140,361	36,038
OTHER HAUL	21,266	139,986	253,392	310,005	3,350,040	57,652	638,033	142,040
TOTAL	36,036	184,536	312,919	535,597	4,296,878	81,549	844,247	192,315
FIXED COSTS	27,652	84,925	164,747	148,258	1,074,732	45,205	270,167	77,852
TOTAL OPERATING COSTS	63,688	269,461	477,666	683,855	5,371,610	126,754	1,114,413	270,168
EARNINGS*	19,885	93,287	143,766	277,886	253,056	42,382	188,641	63,622
PERCENT OF REVENUES	24	26	23	29	4	25	14	19
BASE CASE EARNINGS	23,719	99,679	155,594	305,125	364,432	47,888	215,683	71,496
IMPACT PER TRUCKER	(3,834)	(6,393)	(11,828)	(25,239)	(111,376)	(4,618)	(26,962)	(7,874)
TOTAL INDUSTRY IMPACT	(3,889,296)	(2,217,185)	(1,466,527)	(1,151,668)	(2,579,471)	(5,226,481)	(5,197,666)	(10,443,835)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
ALLOWANCE TO SOLE OWNERS TO WORK IN LIEU OF WAGES

ANALYSIS OF ALBERTA GRAVEL HAUL INDUSTRY

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF GRAVEL TRUCKS
ANALYSIS OF RATE REDUCTION BY: 0%

NUMBER OF TRUCKS:	MORE THAN	0	1	3	6	10	0	3	
	UP TO	1	3	6	10		3		TOTAL ALL
GRAVEL SALES									
ATU		10,544	25,419	37,294	78,230	593,880	15,103	113,745	29,457
OTHER GOV'T		3,832	7,818	12,875	9,220	46,798	4,499	15,571	6,115
MUNICIPAL		8,726	16,822	15,092	63,323	341,100	10,963	65,674	18,913
PRIVATE		15,019	33,628	60,792	368,833	524,684	20,722	189,434	45,224
TOTAL GRAVEL		37,321	82,887	125,253	519,606	1,505,591	51,286	384,424	99,700
OTHER REVENUE		47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,298
TOTAL REVENUE		85,080	366,379	626,760	972,917	5,709,381	171,293	1,319,304	337,998
BASE CASE TOTAL REV		89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,348,052	350,622
RATE CHANGE IMPACT PER CARRIER		(4,519)	(10,894)	(15,983)	(33,527)	(254,146)	(6,473)	(48,748)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(3,546,700)	(3,778,492)	(1,981,733)	(1,529,042)	(5,006,050)	(7,325,200)	(9,397,605)	(16,743,890)
AVG NUMBER OF GRAVEL TRUCKS		1	2	5	8	21	1	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		37,321	35,701	27,446	63,544	72,854	36,500	52,279	43,969
NUMBER OF RESPONDENTS		243	109	38	16	11	352	65	410
WEIGHTED FOR SAMPLE POPULATION		785	347	124	46	23	1,132	193	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF GRAVEL TRUCKS

UP TO	1	3	6	10		3	0	TOTAL ALL
REVENUES:								
GRAVEL HAUL	37,321	82,887	125,253	519,606	1,505,591	51,286	384,424	99,700
OTHER HAUL	47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,298
TOTAL	85,080	366,379	626,760	972,917	5,709,381	171,293	1,319,304	337,998
VARIABLE COSTS:								
ATU GRAVEL HAUL	3,834	14,233	16,595	34,861	390,100	7,021	66,562	15,677
OTHER GRAVEL HAUL	11,483	32,350	45,303	196,317	685,609	17,079	148,361	36,030
OTHER HAUL	21,266	139,986	253,392	310,005	3,350,040	57,652	638,833	142,848
TOTAL	36,584	186,569	315,290	540,463	4,353,750	82,552	853,756	194,555
FIXED COSTS	27,652	84,925	164,747	148,258	1,074,732	45,205	270,167	77,852
TOTAL OPERATING COSTS	64,236	271,494	480,037	688,721	5,428,482	127,757	1,123,922	272,407
EARNINGS*	20,844	94,885	146,723	284,196	280,900	43,536	195,382	65,591
PERCENT OF REVENUES	24	26	23	29	5	25	15	19
BASE CASE EARNINGS	23,719	99,679	155,594	305,125	364,432	47,800	215,603	71,496
IMPACT PER TRUCKER	(2,876)	(4,794)	(8,871)	(18,929)	(83,532)	(3,464)	(20,221)	(5,906)
TOTAL INDUSTRY IMPACT	(2,256,972)	(1,662,889)	(1,099,695)	(863,751)	(1,934,603)	(3,919,868)	(3,898,249)	(7,832,875)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

[illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF GRAVEL TRUCKS
MODELLED AT RATE REDUCTION OF: 20%

NUMBER OF TRUCKS:	MORE THAN	0	1	3	6	10	0	3	
	UP TO	1	3	6	10		3		TOTAL ALL
GRAVEL SALES									
ATU		12,051	29,051	42,621	89,406	677,724	17,261	129,994	33,665
OTHER GOV'T		3,032	7,818	12,075	9,220	46,798	4,499	15,571	6,115
MUNICIPAL		8,726	16,022	15,092	63,323	341,100	10,963	65,674	18,913
PRIVATE		15,019	33,628	68,792	368,833	524,684	20,722	189,434	45,224
TOTAL GRAVEL		38,828	86,519	138,581	530,781	1,590,386	53,444	400,673	103,916
OTHER REVENUE		47,758	283,492	501,507	453,311	4,203,798	120,007	934,880	238,290
TOTAL REVENUE		86,586	370,011	632,088	984,093	5,794,897	173,451	1,335,553	342,286
BASE CASE TOTAL REV		89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
RATE CHANGE IMPACT PER CARRIER		(3,013)	(7,263)	(10,655)	(22,351)	(169,431)	(4,315)	(32,499)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(2,364,472)	(2,518,995)	(1,321,155)	(1,019,895)	(3,924,820)	(4,803,467)	(6,265,070)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS		1	2	5	8	21	1	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		38,828	37,265	28,614	64,911	76,954	38,836	54,488	45,825
NUMBER OF RESPONDENTS		243	189	38	16	11	352	45	418
WEIGHTED FOR SAMPLE POPULATION		765	347	124	46	23	1,132	193	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:NUMBER OF GRAVEL TRUCKS

UP TO	1	3	6	10		3	8	TOTAL ALL
REVENUES:								
GRAVEL HAUL	38,828	86,519	138,581	530,781	1,590,386	53,444	400,673	103,916
OTHER HAUL	47,758	283,492	501,507	453,311	4,203,798	120,007	934,880	238,290
TOTAL	86,586	370,011	632,088	984,093	5,794,897	173,451	1,335,553	342,286
VARIABLE COSTS:								
ATU GRAVEL HAUL	4,382	16,266	18,966	38,927	454,971	8,824	76,871	17,916
OTHER GRAVEL HAUL	11,483	32,350	45,303	196,317	685,689	17,879	148,361	36,030
OTHER HAUL	21,266	139,986	253,392	310,885	3,350,040	57,652	638,833	142,848
TOTAL	37,132	188,602	317,661	545,329	4,410,621	83,555	863,265	196,794
FIXED COSTS	27,652	84,925	164,747	148,258	1,074,732	45,205	270,167	77,852
TOTAL OPERATING COSTS	64,783	273,527	482,408	693,587	5,485,353	128,760	1,133,431	274,647
EARNINGS*	21,802	96,483	149,680	290,506	308,744	44,691	202,122	67,559
PERCENT OF REVENUES	25	26	24	30	5	26	15	20
BASE CASE EARNINGS	23,719	99,679	155,594	303,125	364,432	47,888	215,683	71,496
IMPACT PER TRUCKER	(1,917)	(3,196)	(5,914)	(12,620)	(55,688)	(2,389)	(13,481)	(3,937)
TOTAL INDUSTRY IMPACT	(1,584,648)	(1,108,592)	(737,265)	(575,835)	(1,289,735)	(2,613,248)	(2,596,833)	(5,221,917)

* Includes both [illegible] PROFITS AND [illegible]
[illegible] TO SELF OWNED, [illegible] IN LIEU OF [illegible]

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF GRAVEL TRUCKS
ANALYSIS OF RATE REDUCTION OF: 10%

NUMBER OF TRUCKS: MORE THAN	0	1	3	6	10	0	3	
UP TO	1	3	6	10		3		TOTAL ALL
GRAVEL SALES								
ATU	13,557	32,682	47,949	100,581	762,439	19,419	146,243	37,873
OTHER GOV'T	3,032	7,818	12,075	9,220	46,798	4,499	15,571	6,115
MUNICIPAL	8,725	16,022	15,092	63,323	341,100	10,963	65,674	18,913
PRIVATE	15,019	33,628	60,792	368,833	524,684	20,722	189,434	45,224
TOTAL GRAVEL	40,334	90,150	135,908	541,957	1,675,022	55,602	416,922	108,125
OTHER REVENUE	47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,290
TOTAL REVENUE	88,092	373,642	637,415	995,268	5,878,812	175,608	1,351,803	346,414
BASE CASE TOTAL REV	89,599	377,273	642,743	1,006,444	5,963,528	177,766	1,368,052	350,622
RATE CHANGE IMPACT PER CARRIER	(1,506)	(3,631)	(5,328)	(11,176)	(84,715)	(2,158)	(16,249)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(1,182,236)	(1,259,497)	(660,578)	(509,948)	(1,962,009)	(2,441,733)	(3,132,536)	(5,581,300)
AVG NUMBER OF GRAVEL TRUCKS	1	2	5	8	21	1	7	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	40,334	38,829	29,781	66,278	81,053	39,572	56,698	47,600
NUMBER OF RESPONDENTS	243	109	38	16	11	352	65	410
WEIGHTED FOR SAMPLE POPULATION	785	347	124	46	23	1,132	193	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF GRAVEL TRUCKS

UP TO	1	3	6	10		3	0	TOTAL ALL
REVENUES:								
GRAVEL HAUL	40,334	90,150	135,908	541,957	1,675,022	55,602	416,922	108,125
OTHER HAUL	47,758	283,492	501,507	453,311	4,203,790	120,007	934,880	238,290
TOTAL	88,092	373,642	637,415	995,268	5,878,812	175,608	1,351,803	346,414
VARIABLE COSTS:								
ATU GRAVEL HAUL	4,930	18,299	21,337	43,793	511,843	9,027	85,580	20,156
OTHER GRAVEL HAUL	11,483	32,350	45,303	196,317	605,609	17,879	148,361	36,830
OTHER HAUL	21,266	139,986	253,392	310,085	3,350,040	57,652	638,833	142,048
TOTAL	37,680	190,635	320,032	550,195	4,467,493	84,558	872,773	199,034
FIXED COSTS	27,652	84,925	164,747	148,258	1,074,732	45,205	270,167	77,852
TOTAL OPERATING COSTS	65,331	275,561	484,778	698,453	5,542,224	129,763	1,142,940	276,886
EARNINGS*	22,761	98,081	152,637	296,815	336,588	45,845	208,863	69,528
PERCENT OF REVENUES	26	26	24	30	6	26	15	20
BASE CASE EARNINGS	23,719	99,679	155,594	303,125	364,432	47,000	215,603	71,496
IMPACT PER TRUCKER	(959)	(1,598)	(2,957)	(6,310)	(27,844)	(1,155)	(6,740)	(1,969)
TOTAL INDUSTRY IMPACT	(752,324)	(554,296)	(366,632)	(287,918)	(644,867)	(1,306,620)	(1,299,417)	(2,610,959)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

[illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF EMPLOYEES
ANALYSIS OF RATE REDUCTION OF: 40%

NUMBER OF EMPLOYEES	MORE THAN	0	1	3	6	10	20	
	MAX	1	3	6	10	20		TOTAL ALL
GRAVEL SALES								
	ATU	8,837	12,550	19,955	65,061	103,099	425,308	25,249
	OTHER GOV'T	1,528	3,249	23,530	7,924	15,094	81,200	6,115
	MUNICIPAL	9,286	11,751	18,712	29,848	47,988	299,723	18,913
	PRIVATE	14,132	27,446	63,227	62,399	332,052	500,078	45,224
	TOTAL GRAVEL	33,782	54,995	125,423	165,232	498,233	1,386,389	95,500
OTHER REVENUE		19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL REVENUE		53,647	99,713	267,330	546,285	1,980,857	8,331,522	333,790
BASE CASE TOTAL REV		59,538	108,080	280,633	589,659	2,049,590	8,615,113	350,622
RATE CHANGE IMPACT PER CARRIER		(5,891)	(8,367)	(13,303)	(43,374)	(68,733)	(283,592)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(3,937,439)	(3,436,041)	(1,356,819)	(3,534,543)	(2,567,860)	(7,492,495)	(22,325,197)

AVG NUMBER OF GRAVEL TRUCKS	1	2	4	6	6	13	2
[illegible]	28,863	27,531	34,876	28,574	87,926	103,083	42,113
NUMBER OF RESPONDENTS	208	129	33	25	11	12	418
WEIGHTED FOR SAMPLE POPULATION	668	411	102	81	37	26	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF EMPLOYEES

MAX	1	3	6	10	20	0	TOTAL ALL
REVENUES:							
GRAVEL HAUL	33,782	54,995	125,423	165,232	498,233	1,386,389	95,500
OTHER HAUL	19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL	53,647	99,713	267,330	546,285	1,980,857	8,331,522	333,790
VARIABLE COSTS:							
ATU GRAVEL HAUL	3,238	5,527	10,948	23,974	45,743	325,836	13,437
OTHER GRAVEL HAUL	9,448	19,366	62,594	34,242	106,735	810,679	36,830
OTHER HAUL	7,640	22,140	76,592	141,152	789,508	4,746,128	142,040
TOTAL	20,326	47,033	150,134	199,367	941,986	5,882,643	192,315
FIXED COSTS	15,305	29,553	86,457	154,666	510,269	1,529,362	77,852
TOTAL OPERATING COSTS	35,631	76,586	236,591	354,033	1,452,255	7,412,006	270,168
EARNINGS*	18,016	23,128	30,739	192,251	528,602	919,516	63,622
PERCENT OF REVENUES	34	23	11	35	27	11	19
BASE CASE EARNINGS	21,748	27,810	36,743	219,643	566,840	985,884	71,496
IMPACT PER TRUCKER	(3,732)	(4,682)	(6,005)	(27,392)	(38,238)	(66,368)	(7,874)
TOTAL INDUSTRY IMPACT	(2,494,480)	(1,922,786)	(612,434)	(2,232,140)	(1,428,560)	(1,753,432)	(10,443,833)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF ALBERTA GRAVEL BASE TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF EMPLOYEES
ANALYSIS OF RATE REDUCTION OF: 30%

NUMBER OF EMPLOYEES	MORE THAN	0	1	3	6	10	20	
	MAX	1	3	6	10	20		TOTAL ALL
GRAVEL SALES								
	ATU	10,309	14,642	23,281	75,904	120,283	496,286	29,457
	OTHER GOV'T	1,528	3,249	23,530	7,924	15,094	81,200	6,115
	MUNICIPAL	9,286	11,751	18,712	29,848	47,988	299,723	18,913
	PRIVATE	14,132	27,446	63,227	62,399	332,052	580,078	45,224
	TOTAL GRAVEL	35,255	57,087	128,749	176,076	515,417	1,457,287	99,708
OTHER REVENUE		19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL REVENUE		55,120	101,805	270,656	557,128	1,998,040	8,402,420	337,998
BASE CASE TOTAL REV		59,538	108,080	280,633	589,659	2,049,590	8,615,113	350,622
RATE CHANGE IMPACT PER CARRIER		(4,418)	(6,275)	(9,978)	(32,530)	(51,550)	(212,694)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(2,953,079)	(2,577,031)	(1,017,615)	(2,650,907)	(1,925,895)	(5,619,371)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS		1	2	4	6	6	13	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		30,122	28,578	35,801	30,449	90,959	108,354	43,969
NUMBER OF RESPONDENTS		208	129	33	25	11	12	418
WEIGHTED FOR SAMPLE POPULATION		668	411	102	81	37	26	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF EMPLOYEES

MAX	1	3	6	10	20	0	TOTAL ALL
REVENUES:							
GRAVEL HAUL	35,255	57,087	128,749	176,076	515,417	1,457,287	99,708
OTHER HAUL	19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL	55,120	101,805	270,656	557,128	1,998,040	8,402,420	337,998
VARIABLE COSTS:							
ATU GRAVEL HAUL	3,778	6,448	12,773	27,969	53,367	380,142	15,677
OTHER GRAVEL HAUL	9,448	19,366	62,594	34,242	106,735	810,679	36,830
OTHER HAUL	7,640	22,140	76,592	141,152	789,508	4,746,128	142,048
TOTAL	20,866	47,954	151,959	203,363	949,610	5,936,949	194,555
FIXED COSTS	15,305	29,553	86,457	154,666	510,269	1,529,362	77,852
TOTAL OPERATING COSTS	36,171	77,507	238,416	358,029	1,459,879	7,466,312	272,407
EARNINGS*	18,949	24,298	32,240	199,099	538,161	936,108	65,591
PERCENT OF REVENUES	34	24	12	36	27	11	19
BASE CASE EARNINGS	21,748	27,810	36,743	219,643	566,840	985,884	71,496
IMPACT PER TRUCKER	(2,799)	(3,511)	(4,504)	(20,544)	(28,678)	(49,776)	(5,906)
TOTAL INDUSTRY IMPACT	(1,870,860)	(1,442,089)	(459,326)	(1,674,105)	(1,071,420)	(1,315,874)	(7,832,875)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS
AVAILABLE TO SOLE OWNERS TO LOAN IN LIEU OF SALARY

ANALYSIS OF ALBERTA GRAVEL HAUL [illegible]

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: NUMBER OF EMPLOYEES
ANALYSIS OF RATE REDUCTION OF: 20%

NUMBER OF EMPLOYEES	MORE THAN	0	1	3	6	10	20	
	MAX	1	3	6	10	20		TOTAL ALL
GRAVEL SALES								
	ATU	11,782	16,733	26,607	86,748	137,466	567,184	33,665
	OTHER GOV'T	1,528	3,249	23,530	7,924	15,094	81,200	6,115
	MUNICIPAL	9,286	11,751	18,712	29,848	47,980	299,723	18,913
	PRIVATE	14,132	27,446	63,227	62,399	332,052	580,078	45,224
	TOTAL GRAVEL	36,728	59,179	132,075	186,919	532,600	1,528,185	103,916
OTHER REVENUE		19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
TOTAL REVENUE		56,592	103,897	273,981	567,972	2,015,223	8,473,317	342,206
BASE CASE TOTAL REV		59,530	108,080	280,633	589,659	2,049,590	8,615,113	350,622
RATE CHANGE IMPACT PER CARRIER		(2,946)	(4,183)	(6,652)	(21,687)	(34,366)	(141,796)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(1,968,719)	(1,718,020)	(678,410)	(1,767,271)	(1,283,930)	(3,746,247)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS		1	2	4	6	6	13	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		31,380	29,625	36,726	32,324	93,991	113,626	45,825
NUMBER OF RESPONDENTS		200	129	33	25	11	12	410
WEIGHTED FOR SAMPLE POPULATION		660	411	102	81	37	26	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF EMPLOYEES

	MAX	1	3	6	10	20	0	TOTAL ALL
REVENUES:								
	GRAVEL HAUL	36,728	59,179	132,075	186,919	532,600	1,528,185	103,916
	OTHER HAUL	19,865	44,718	141,906	381,053	1,482,623	6,945,133	238,290
	TOTAL	56,592	103,897	273,981	567,972	2,015,223	8,473,317	342,206
VARIABLE COSTS:								
	ATU GRAVEL HAUL	4,318	7,370	14,597	31,965	60,990	434,440	17,916
	OTHER GRAVEL HAUL	9,448	19,366	62,594	34,242	106,735	810,679	36,830
	OTHER HAUL	7,640	22,140	76,592	141,152	789,508	4,746,128	142,048
	TOTAL	21,405	48,875	153,783	207,359	957,234	5,991,255	196,794
FIXED COSTS		15,305	29,553	86,457	154,666	510,269	1,529,362	77,852
TOTAL OPERATING COSTS		36,710	78,428	240,240	362,025	1,467,502	7,520,618	274,647
EARNINGS*		19,882	25,469	33,741	205,947	547,721	952,700	67,559
PERCENT OF REVENUES		35	25	12	36	27	11	20
BASE CASE EARNINGS		21,748	27,810	36,743	219,643	566,840	985,884	71,496
IMPACT PER TRUCKER		(1,866)	(2,341)	(3,002)	(13,696)	(19,119)	(33,184)	(3,937)
TOTAL INDUSTRY IMPACT		(1,247,240)	(961,393)	(306,217)	(1,116,020)	(714,280)	(876,716)	(5,221,917)

* INCLUDES BOTH [illegible] PROFITS AND EARNINGS
AVAILABILITY OF SOLE OWNERS TO FROM [illegible]

[illegible]

AVERAGE REVENUE STABILIZED OF EARNINGS BY: NUMBER OF EMPLOYEES
ANALYSIS OF RATE REDUCTION OF: 10%

NUMBER OF EMPLOYEES	MORE THAN	0	1	3	6	10	20	
	MAX	1	3	6	10	20		TOTAL ALL
GRAVEL SALES								
ATU		13,255	10,825	29,915	97,591	154,649	630,882	37,873
OTHER GOV'T		1,528	3,349	23,538	7,924	15,894	81,200	6,115
MUNICIPAL		9,286	11,751	18,712	29,840	47,980	299,723	18,913
PRIVATE		14,132	27,446	63,227	62,399	332,852	580,078	45,224
TOTAL GRAVEL		38,200	61,270	135,401	197,763	549,783	1,599,883	108,125
OTHER REVENUE		19,865	44,710	141,986	381,853	1,482,623	6,945,133	238,290
TOTAL REVENUE		58,065	105,980	277,387	578,815	2,032,406	8,544,215	346,414
BASE CASE TOTAL REV		59,538	108,808	280,633	589,659	2,049,598	8,615,113	350,622
RATE CHANGE IMPACT PER CARRIER		(1,473)	(2,892)	(3,326)	(10,843)	(17,183)	(70,890)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES		(984,368)	(859,818)	(339,285)	(1083,636)	(641,965)	(1,873,124)	(5,581,388)
AVG NUMBER OF GRAVEL TRUCKS		1	2	4	6	6	13	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK		32,638	30,672	37,651	34,199	97,824	118,897	47,688
NUMBER OF RESPONDENTS		200	129	33	25	11	12	410
WEIGHTED FOR SAMPLE POPULATION		668	411	102	81	37	26	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: NUMBER OF EMPLOYEES

	MAX	1	3	6	10	20	0 TOTAL ALL
REVENUES:							
GRAVEL HAUL		38,200	61,270	135,401	197,763	549,783	1,599,883	108,125
OTHER HAUL		19,865	44,710	141,986	381,853	1,482,623	6,945,133	238,290
TOTAL		58,065	105,980	277,387	578,815	2,032,406	8,544,215	346,414
VARIABLE COSTS:								
ATU GRAVEL HAUL		4,850	8,291	16,422	35,960	60,614	480,754	20,156
OTHER GRAVEL HAUL		9,440	19,366	62,594	34,242	186,735	818,679	36,838
OTHER HAUL		7,640	22,140	76,592	141,152	789,588	4,746,128	142,840
TOTAL		21,945	49,797	155,608	211,354	964,857	6,045,562	199,834
FIXED COSTS		15,305	29,553	86,457	154,666	510,269	1,529,362	77,052
TOTAL OPERATING COSTS		37,250	79,349	242,065	366,020	1,475,126	7,574,924	276,886
EARNINGS*		20,815	26,639	35,242	212,795	557,280	969,292	69,528
PERCENT OF REVENUES		36	25	13	37	27	11	20
BASE CASE EARNINGS		21,748	27,818	36,743	219,643	566,848	985,884	71,496
IMPACT PER TRUCKER		(933)	(1,178)	(1,501)	(6,848)	(9,559)	(16,592)	(1,969)
TOTAL INDUSTRY IMPACT		(625,628)	(488,697)	(153,189)	(558,035)	(357,140)	(438,358)	(2,618,959)

* INCLUDES NON-CAPITALIZE PROFITS AND EARNINGS
AVAILABLE TO CAPITALIZE DEBTS IN LESS OF EQUITY

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: REGION
ANALYSIS OF RATE REDUCTION OF: 40%

REGION	1	2	3	4	5	6	EDM 7	CAL 8	TOTAL ALL
GRAVEL SALES									
ATU	39,329	13,719	36,465	20,949	20,541	30,250	41,680	14,607	25,249
OTHER GOV'T	26,628	4,657	7,987	747	5,114	3,800	10,613	3,740	6,115
MUNICIPAL	13,894	24,825	48,605	14,782	14,433	9,500	21,384	34,672	18,913
PRIVATE	87,206	30,584	56,121	20,353	47,051	45,120	24,637	34,772	45,224
TOTAL GRAVEL	167,057	73,786	149,178	56,831	87,140	88,670	98,241	87,800	95,500
OTHER REVENUE	93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL REVENUE	260,457	223,302	619,599	148,221	320,370	383,740	626,157	125,893	333,790
BASE CASE TOTAL REV	286,676	232,449	643,989	162,180	334,064	403,987	653,896	135,631	350,622
RATE CHANGE IMPACT PER CARRIER	(26,219)	(9,146)	(24,310)	(13,966)	(13,694)	(20,167)	(27,739)	(9,738)	(16,832)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(2,492,156)	(1,473,279)	(4,053,663)	(2,373,153)	(6,050,444)	(5,882,502)	(4,859,580)	(760,745)	(22,325,197)
AVG NUMBER OF GRAVEL TRUCKS	4	3	3	2	2	2	2	4	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	47,470	25,363	52,314	24,799	53,529	41,692	49,662	25,886	42,113
NUMBER OF RESPONDENTS	34	76	52	48	145	63	57	42	418
RETURNED FOR SAMPLE POPULATION	95	161	167	170	442	292	175	78	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:REGION

	0	1	2	3	4	5	6	7	8	TOTAL ALL
REVENUES:										
GRAVEL HAUL		167,057	73,786	149,178	56,831	87,140	88,670	98,241	87,800	95,500
OTHER HAUL		93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL		260,457	223,302	619,599	148,221	320,370	383,740	626,157	125,893	333,790
VARIABLE COSTS:										
ATU GRAVEL HAUL		17,775	4,710	20,844	8,846	12,920	11,951	20,486	4,750	13,437
OTHER GRAVEL HAUL		75,327	21,947	79,174	13,723	29,254	33,233	35,677	29,403	36,830
OTHER HAUL		52,112	68,034	339,423	44,297	170,615	113,869	397,884	15,969	142,040
TOTAL		145,213	94,691	446,640	66,866	212,789	158,253	462,048	50,211	192,315
FIXED COSTS		67,799	69,647	108,673	36,195	74,704	97,075	148,865	33,176	77,852
TOTAL OPERATING COSTS		213,013	164,338	555,313	103,061	287,493	255,328	610,112	83,387	270,168
EARNINGS*		47,444	58,964	64,286	45,160	32,877	128,412	16,845	42,506	63,622
PERCENT OF REVENUES		18	26	10	30	10	33	3	34	19
BASE CASE EARNINGS		61,814	64,970	69,900	53,229	37,958	140,612	24,793	49,072	71,496
IMPACT PER TRUCKER		(14,370)	(6,006)	(5,614)	(8,069)	(5,081)	(12,200)	(8,748)	(6,566)	(7,874)
TOTAL INDUSTRY IMPACT		(1,365,826)	(967,498)	(936,158)	(1,371,846)	(2,244,837)	(3,558,477)	(1,532,564)	(512,928)	(10,443,833)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: REGION
ANALYSIS OF RATE REDUCTION OF: 30%

REGION	1	2	3	4	5	6	EDM 7	CAL 8	TOTAL ALL
GRAVEL SALES									
ATU	45,864	16,006	42,542	24,441	23,965	35,292	48,543	17,042	29,457
OTHER GOV'T	26,628	4,657	7,987	747	5,114	3,808	10,613	3,748	6,115
MUNICIPAL	13,894	24,825	48,605	14,782	14,433	9,500	21,384	34,672	18,913
PRIVATE	87,206	30,584	56,121	20,353	47,051	45,120	24,637	34,772	45,224
TOTAL GRAVEL	173,612	76,072	155,255	60,323	90,563	93,720	105,176	90,234	99,708
OTHER REVENUE	93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL REVENUE	267,012	225,589	625,677	151,713	323,794	388,782	633,092	128,327	337,998
BASE CASE TOTAL REV	286,676	232,449	643,909	162,188	334,864	403,907	653,896	135,631	350,622
RATE CHANGE IMPACT PER CARRIER	(19,665)	(6,860)	(18,232)	(10,475)	(10,271)	(15,125)	(20,804)	(7,304)	(12,624)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(1,869,117)	(1,104,960)	(3,040,247)	(1,779,865)	(4,537,832)	(4,411,877)	(3,644,691)	(570,559)	(16,743,898)
AVG NUMBER OF GRAVEL TRUCKS	4	3	3	2	2	2	2	4	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	49,333	26,148	54,445	26,323	55,632	44,062	53,168	25,781	43,969
NUMBER OF RESPONDENTS	34	76	52	48	145	63	57	42	418
WEIGHTED FOR SAMPLE POPULATION	95	161	167	170	442	292	175	70	1,326

REVENUE/COST STRUCTURE

MODELLED FOR:REGION

0	1	2	3	4	5	6	7	8	TOTAL ALL
REVENUES:									
GRAVEL HAUL	173,612	76,072	155,255	60,323	90,563	93,720	105,176	90,234	99,708
OTHER HAUL	93,399	149,517	470,421	91,390	233,230	295,062	527,916	38,093	238,290
TOTAL	267,012	225,589	625,677	151,713	323,794	388,782	633,092	128,327	337,998
VARIABLE COSTS:									
ATU GRAVEL HAUL	20,737	5,495	32,717	10,321	15,073	13,943	33,234	5,551	15,677
OTHER GRAVEL HAUL	75,327	21,947	79,174	13,723	29,254	33,233	35,677	29,483	36,830
OTHER HAUL	52,112	68,034	339,423	44,297	170,615	113,869	397,884	15,969	142,848
TOTAL	148,176	95,476	451,314	68,340	214,942	160,245	466,795	51,004	194,555
FIXED COSTS	67,799	69,647	108,673	36,195	74,704	97,075	148,065	33,176	77,852
TOTAL OPERATING COSTS	215,975	165,123	559,987	104,536	289,646	257,320	614,860	84,180	272,407
EARNINGS*	51,036	60,465	65,690	47,177	34,147	131,462	18,232	44,147	65,591
PERCENT OF REVENUES	19	27	10	31	11	34	3	34	19
BASE CASE EARNINGS	61,814	64,970	69,900	53,229	37,958	140,612	24,793	49,072	71,496
IMPACT PER TRUCKER	(10,777)	(4,505)	(4,211)	(6,052)	(3,811)	(9,150)	(6,561)	(4,924)	(5,906)
TOTAL INDUSTRY IMPACT	(1,024,369)	(725,617)	(702,118)	(1,028,285)	(683,627)	(2,668,858)	(1,149,423)	(384,696)	(7,832,875)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF MINISTER'S BOARD REPORTS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: REGION

ANALYSIS OF RATE REDUCTION OF: .03

REGION	1	2	3	4	5	6	EDM 7	CAL 8	TOTAL ALL
GRAVEL SALES									
ATU	52,439	18,295	48,628	27,933	27,188	48,334	55,478	19,476	33,665
OTHER GOV'T	26,628	4,657	7,987	747	5,114	3,888	18,613	3,748	6,115
MUNICIPAL	13,894	24,825	48,685	14,782	14,433	9,588	21,384	34,672	18,913
PRIVATE	87,206	38,584	56,121	20,353	47,851	45,128	24,637	34,772	45,224
TOTAL GRAVEL	180,167	78,359	161,333	63,814	93,987	98,761	112,111	92,669	103,916
OTHER REVENUE	93,399	149,517	470,421	91,390	233,230	295,862	527,916	38,093	238,298
TOTAL REVENUE	273,566	227,875	631,754	155,204	327,217	393,823	640,027	130,762	342,206
BASE CASE TOTAL REV	286,676	232,449	643,989	162,188	334,864	403,987	653,896	135,631	350,622
RATE CHANGE IMPACT PER CARRIER	(13,110)	(4,573)	(12,155)	(6,983)	(6,847)	(10,883)	(13,869)	(4,869)	(8,416)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(1,246,878)	(736,648)	(2,826,832)	(1,186,577)	(3,825,221)	(2,941,251)	(2,429,794)	(380,373)	(11,162,599)
AVG NUMBER OF GRAVEL TRUCKS	4	3	3	2	2	2	2	4	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	51,195	26,934	56,577	27,846	57,735	46,433	56,673	26,477	45,825
NUMBER OF RESPONDENTS	34	76	52	48	145	63	57	42	418
WEIGHTED FOR SAMPLE POPULATION	95	161	167	178	442	292	175	78	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: REGION

	0	1	2	3	4	5	6	7	8	TOTAL ALL
REVENUES:										
GRAVEL HAUL		180,167	78,359	161,333	63,814	93,987	98,761	112,111	92,669	103,916
OTHER HAUL		93,399	149,517	470,421	91,390	233,230	295,862	527,916	38,093	238,298
TOTAL		273,566	227,875	631,754	155,204	327,217	393,823	640,027	130,762	342,206
VARIABLE COSTS:										
ATU GRAVEL HAUL		23,788	6,288	37,391	11,795	17,227	15,935	37,982	6,345	17,916
OTHER GRAVEL HAUL		75,327	21,947	79,174	13,723	29,254	33,233	35,677	29,483	36,838
OTHER HAUL		52,112	68,034	339,423	44,297	178,615	113,869	397,884	15,969	142,840
TOTAL		151,138	96,261	455,988	69,815	217,095	162,237	471,543	51,797	196,794
FIXED COSTS		67,799	69,647	108,673	36,195	74,704	97,075	148,065	33,176	77,852
TOTAL OPERATING COSTS		218,938	165,908	564,661	106,010	291,800	259,311	619,607	84,973	274,647
EARNINGS*		54,629	61,967	67,093	49,194	35,417	134,512	20,419	45,789	67,559
PERCENT OF REVENUES		20	27	11	32	11	34	3	35	20
BASE CASE EARNINGS		61,814	64,978	69,988	53,229	37,958	148,612	24,793	49,872	71,496
IMPACT PER CARRIER		(7,185)	(3,003)	(2,887)	(4,034)	(2,540)	(6,188)	(4,374)	(3,283)	(3,937)
TOTAL INDUSTRY IMPACT		(622,913)	(483,745)	(468,879)	(685,523)	(1,122,418)	(1,779,238)	(766,281)	(256,464)	(5,221,917)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY

ANALYSIS OF ALBERTA GRAVEL HAUL TRUCKERS

AVERAGE REVENUE STRUCTURE OF CARRIERS BY: REGION

ANALYSIS OF RATE REDUCTION OF: 10%

REGION	1	2	3	4	5	6	EDM 7	CAL 8	TOTAL ALL
GRAVEL SALES									
ATU	58,994	20,579	54,697	31,424	30,012	45,376	62,413	21,911	37,073
OTHER GOV'T	26,620	4,657	7,987	747	5,114	3,000	10,613	3,740	6,115
MUNICIPAL	13,094	24,025	40,605	14,702	14,433	9,500	21,304	34,672	18,913
PRIVATE	87,286	30,584	56,121	20,353	47,851	45,120	24,637	34,772	45,224
TOTAL GRAVEL	186,722	80,645	167,410	67,306	97,410	103,003	119,046	95,103	108,125
OTHER REVENUE	93,399	149,517	470,421	91,390	233,230	295,862	527,916	38,093	238,290
TOTAL REVENUE	280,121	230,162	637,832	158,696	330,641	398,865	646,961	133,196	346,414
BASE CASE TOTAL REV	286,676	232,449	643,989	162,188	334,864	403,987	653,896	135,631	350,622
RATE CHANGE IMPACT PER CARRIER	(6,555)	(2,287)	(6,077)	(3,492)	(3,424)	(5,042)	(6,935)	(2,435)	(4,208)
RATE CHANGE IMPACT ON INDUSTRY REVENUES	(623,839)	(368,328)	(1,813,416)	(593,289)	(1,512,618)	(1,478,626)	(1,214,896)	(198,186)	(5,501,388)
AVG NUMBER OF GRAVEL TRUCKS	4	3	3	2	2	2	2	4	2
AVG. GRAVEL REVENUE PER GRAVEL TRUCK	53,058	27,728	58,788	29,378	59,838	48,883	68,179	27,172	47,688
NUMBER OF RESPONDENTS	34	76	52	48	145	63	57	42	418
WEIGHTED FOR SAMPLE POPULATION	95	161	167	178	442	292	175	78	1,326

REVENUE/COST STRUCTURE

MODELLED FOR: REGION

0	1	2	3	4	5	6	7	8 TOTAL ALL
REVENUES:								
GRAVEL HAUL	186,722	80,645	167,410	67,306	97,410	103,003	119,046	95,103	108,125
OTHER HAUL	93,399	149,517	470,421	91,390	233,230	295,862	527,916	38,093	238,290
TOTAL	280,121	230,162	637,832	158,696	330,641	398,865	646,961	133,196	346,414
VARIABLE COSTS:									
ATU GRAVEL HAUL	26,662	7,865	42,865	13,269	19,380	17,927	42,738	7,130	20,156
OTHER GRAVEL HAUL	75,327	21,947	79,174	13,723	29,254	33,233	35,677	29,403	34,830
OTHER HAUL	52,112	68,034	339,423	44,297	178,615	113,869	397,884	15,969	142,840
TOTAL	154,101	97,846	460,662	71,289	219,240	164,229	476,291	52,598	199,834
FIXED COSTS	67,799	69,647	108,673	36,195	74,704	97,075	148,065	33,176	77,052
TOTAL OPERATING COSTS	221,900	166,693	569,335	107,484	293,953	261,303	624,355	85,766	276,886
EARNINGS*	58,221	63,469	68,497	51,212	36,688	137,562	22,606	47,430	69,528
PERCENT OF REVENUES	21	28	11	32	11	34	3	36	20
BASE CASE EARNINGS	61,814	64,978	69,988	53,229	37,958	140,612	24,793	49,072	71,496
IMPACT PER TRUCKER	(3,592)	(1,582)	(1,484)	(2,017)	(1,270)	(3,050)	(2,187)	(1,641)	(1,969)
TOTAL INDUSTRY IMPACT	(341,457)	(241,873)	(234,848)	(34[illegible],762)	(561,288)	(889,619)	(383,148)	(128,232)	(2,618,959)

* INCLUDES BOTH CORPORATE PROFITS AND EARNINGS AVAILABLE TO SOLE OWNERS TO DRAW IN LIEU OF SALARY